

July 16
1842.

THE ATHENÆUM

Journal of English and Foreign Literature, Science, and the Fine Arts.

No. 769.

LONDON, SATURDAY, JULY 23, 1842.

PRICE
FOURPENCE.
(Stamped Edition, 8d.)

For the convenience of Subscribers residing in remote places, the weekly numbers are reissued in Monthly Parts, stitched in a wrapper, and forwarded with the Magazine. Subscriptions for the Stamped Edition for the Continent, for not less than Three Months, and advance payment, may be made by M. BACRY, at Quai Malaquais, Paris, or at the Athenæum Office, London. For France, and other Countries not requiring the postage to be paid in London, 28fr. or 11. 2s. the year. To other Countries, the postage in addition.

MUSIC.—A Theoretical and Practical Musician, of high standing in the profession, imparts instruction agreeably to the dictates of *Common Sense*, and enables his pupils to perform from the first lesson. Anxious for his pupils to obtain, he offers his services for the Piano-forte, Harp, Spanish Guitar, Italian and English Singing (with proper articulation and enunciation), at 2s. 6d. the hour. Ladies wishing to improve in time or style, accompanied on the violin.—Address, at A. B. No. 5, Charterhouse-square, City.

GERMAN LANGUAGE AND LITERATURE.—A professional German Gentleman, having part of his time disengaged, would be happy to devote some of his leisure to teaching his native language. Persons wishing to acquire a correct knowledge of this language, and a true pronunciation, will find this an excellent opportunity. Apply by letter, or in person, to H. S., at Mr. Nutt's Foreign Library, 155, Fleet-street.

EDUCATION.—Terms, Six Guineas per Quarter. **A MINERVA HOUSE, STAMFORD HILL, MIDDLESEX.**—YOUNG GENTLEMEN are liberally boarded and carefully educated by Mr. S. PRESTON, who has been 25 years engaged in the profession. The above-named charge includes the Education, Washing, &c., with instruction in the English and French Languages; Arithmetic, Algebra, Geometry, and the Elements of the Mathematics; the Elements of Natural and Experimental Philosophy, Chemistry, and Astronomy; Geography, History, Writing, Drawing, Singing, and Gymnastic Exercises. An inspection of the accommodation, and an inquiry into the treatment of the scholars, may be made at any time. School recommenced July 13.—Omnibuses from the Flower-pot, Bishopsgate-street, every half-hour.

EDUCATION IN GERMANY.—A PROTESTANT CLERGYMAN, a native of Saxony, who has been appointed by the Government Director of an Institute, RESIDES in his House a limited number of PUPILS. His instruction by Professor of the University of Halle. The studies include the German, French, and Italian Languages, the Latin and Greek Classics, Mathematics, Arithmetic, and every branch necessary to form the education of youth. The inmates are under the superintendence of an English Lady, the wife of the Director. The highest references given. In English Gentlemen, returning shortly to Germany, has offered to take charge upon the cards of address, &c. apply to Messrs. Hatchard & Son, 17, Piccadilly; Mr. P. Rolandi, in Berners-street, Oxford-street; or Messrs. J. Ewer & Co. in Newgate-street.

DRAWING FOR THE PEOPLE.—London Mechanics' Institution.—Mr. GANDEE, Professor of Perspective, Drawing, &c., will COMMENCE a CLASS on the new and successful method of DRAWING from models on Monday evening next, July 23, at a quarter past eight o'clock, and another at the same time on Tuesday evening. A class for adults will meet at six o'clock on Wednesday evening. The course will consist of 60 lessons, at 6d. each; ten lessons to be paid in advance.—Tickets may be obtained at the Institution, and Mr. Gandee, at Mr. Fuller's, 13, Brownlow-street, Holborn.

BRUCE CASTLE SCHOOL, TOTTENHAM.—Bruce Castle is rather more than five miles from London, and is about a quarter of a mile west of the high road to Hertford. It stands in a park containing nearly twenty acres of land, and the surrounding country is fertile and salubrious. A description of Bruce Castle will be found in the 'Beauties of England and Wales,' and in 'Lysons's Environs of London.' In addition to the Conductor, there are three resident teachers, one of whom is a native of France. The course of study is such, as to enable young men immediately on leaving school to enter one of the Universities, to engage in commerce or agriculture, or to adopt the military or naval profession. Much general knowledge is communicated by means of a course of private reading, in which the pupils are induced to engage. Lectures, too, are delivered on various branches of natural philosophy. In his plans of government and instruction, the Conductor addresses himself as far as possible to the religious principles, reasoning powers, and good feelings of his pupils. The grounds of the school regulations are explained, and at all times the pupils are encouraged to apply for information respecting everything which is not perfectly clear to their minds. Acting on the principle referred to, and often connected with it, the Conductor has succeeded in rendering the acquisition of knowledge, to a certain degree, what, in unlimited means and under perfect arrangements, it would be entirely, namely, a source of continued pleasure to the scholar. In developing the same principles, also, he has been enabled to dispense, to a very great extent, with artificial rewards and punishments, and to associate the boys themselves in the business of school government. Corporal punishments he entirely discards, and, with rare exceptions, he has found that by making a boy a real master of his own conduct, and by inducing, if it is quite practicable to induce upright conduct, a genuine desire to do good, to oblige, and an anxiety to avoid any selfish demonstration, either moral or physical. To the early formation of habits of industry, punctuality, and obedience, the cultivation of a love of knowledge, the elevation of the moral principles, and the development of the mental and physical powers, the Conductor directs his most strenuous efforts. Enriched by long experience that beside the direct benefits conferred upon his pupils, it is by such means alone that he can lay a sure foundation for solid acquisition. A concise view of the plans in use is given in a small pamphlet, entitled, 'Sketch of the System of Education at Bruce Castle, Tottenham' (Charles Knight, London, 1837). Information respecting the charges and other matters of detail may be obtained by application at Bruce Castle. There is also a preparatory school for boys between the age of four and nine, the pupils of which are under female superintendence, the plans of instruction being, with some modification, those generally adopted in infant schools. The vacation will terminate with Wednesday, July 27th.

HENRY G. BOHN, Bookseller, of No. 4 and 5, YORK-STREET, COVENT GARDEN, finds it necessary to state, that he is not the proprietor of the book entitled 'The Firm' by the same name, and that his firm advertised as retiring. To prevent mistakes, and to avoid any other misapprehension, he has decided to use the name 'HENRY G. BOHN' in all his publications. He can be observed in favour intended for him. His stock is by much the largest and finest in Europe, and the prices at moderate prices. His Guinea Catalogue will be had on the terms constantly advertised. YORK-STREET, COVENT GARDEN.

CROSBY HALL LITERARY AND SCIENTIFIC INSTITUTION, Bishopsgate-street Within.—The Committee of Management respectfully inform the Public, that the METROPOLITAN LITERARY AND SCIENTIFIC INSTITUTION has removed from Salvador House to these Premises, and that the GREAT HALL will be opened with A SOIREE on WEDNESDAY, July 27th, when an introductory notice will be delivered by T. B. B. Esq. F.R.S., the President; and that on FRIDAY, August 5th, the Rev. C. MACKENZIE, A.M., the Vicar of St. Helen's, has kindly consented to deliver a Lecture, 'On the History and Antiquities of the Hall,' and the restoration of Crosby Hall, and in the use now made of it, the Committee of Management trust something more has been achieved than the mere preservation of an architectural relic by placing it within its walls calculated to promote the extension of knowledge, and to direct it aright. In this noble Hall, LECTURES will be weekly delivered by eminent Professors, on Subjects connected with Science, Literature, and Art. A number of rooms are fitted for the reception of CLASSES, and a LIBRARY of Reference and Circulation, including the best Standard Works, and to which New Publications of interest are continually added, is provided for the use of the Members. The Committee confidently appeal to the public for support, convinced that, in applying Crosby Hall to its present purposes, they have adopted a course calculated not only to preserve its fame, but to render it extensively useful. The Lectures will be resumed early in September, and the arrangements will be announced by the Committee. Terms of Subscription: Yearly, 2s. 2d.; Half Yearly, 11s. 1d. July 20, 1842. W. HERRING, Hon. Sec.

PORTRAITS by the CALOTYPE PROCESS stand foremost among the wonders of the present age, being produced by the agency of light, during a sitting of a few seconds; from the picture thus obtained, any number of the faithful likenesses may be taken, and sent to any distance at the sifter. They are indestructible, and can be had only of Mr. Collett, 29, Somerset-street, Portman-square. Price One Guinea each.

PORTRAITS by Mr. CLAUDET'S INSTANTANEOUS DAGUERRETYPE PROCESS, under the patronage of Her Majesty, are taken daily at the ROYAL ADELPHI GALLERY, Lowther Arcade, Strand. The sitting generally occupies less than one second, by which faithful and pleasing likenesses are obtained. The introduction of backgrounds, representing Landscapes, Interiors of Apartments, &c., is the invention of Mr. Claudet, for which he has obtained Letters Patent. Considerable alterations have recently been made for the convenience and better accommodation of Mr. Claudet's visitors. Portraits and Groups of Figures are also taken upon plates of an enlarged size.

ELECTROTYPE.—Mr. J. PAYNE, Engraver, 22, Fleet-street, nearly opposite Chancery-lane, continues to dispose of his much-improved form of ELECTROTYPE APPARATUS, price 2s., by which this useful and entertaining process may be practised with more ease, neatness, and economy, than by any other form of Electrotype apparatus. Ladies will find this a most useful machine for copying medals, seals, &c. Purchasers will receive all the necessary instructions. Duplicate Seals, from Arms, Crests, and Devices, made from the sealing-wax impressions (as perfect as the originals), from 3s. each. The convenience of this will be evident where a seal is required for use in the country house, as well as the private residence, or in different parts of the same establishment. When a duplicate seal is required, the original seal should be brought, or the best impression that can be obtained. A valuable collection of Imprints from Gems, &c. for sale, and from any of which seals are made. Those who make their own Electrotypes can have them mounted as seals from 2s. Engraving upon seals, from 1s. each, plate, card, glass, &c. in the best style. Arms found. Orders received by post promptly attended to.

ELECTRICAL AND ELECTRO-MAGNETIC APPARATUS.—Improved Galvanic Batteries, Professor Bachthofner's Electro-magnetic Machines, Callan's Coils, with Rotating Electro-Magnet for giving powerful shocks, Electrotype Apparatus, Cameras, and all kinds of Optical Instruments, made and sold by C. W. COLLINS, Working Philosophical Instrument Maker, late Assistant at the Royal Polytechnic Institution, 38, A. Princes-street, Leicester-square, London. Working Models of Steam Engines and all kinds of Machinery made to drawings.

CHEAP AND VALUABLE BOOKS.—JOHN RUSSELL SMITH has this day published No. XXVIII. of his 'OLD BOOK CIRCULAR,' containing 600 useful, curious, and valuable Second-hand Books at very moderate prices, *Gratis and Postage free*, on application, in Great Britain, France, and America.

GENTLEMAN'S MAGAZINE, 1731 to June 1842 inclusive, with 5 vols. of Index, in all 176 vols. half-bound, uncut, very rare in this state, 35s. Well worthy the attention of any Club or Literary Institution.

LODGE'S PORTRAITS OF ILLUSTRIOUS PERSONAGES OF BRITISH HISTORY, 1500-1833, 13 vols. royal 4to. large paper, proof impressions of the fine plates on India paper, half-morocco, uncut, 16s. 10s. published at 6s.

UNITED SERVICE JOURNAL, 1827 to July 1841 inclusive, first 33 vols. half-morocco extra, the remainder in numbers, 12s.

VOLTAIRE, ŒUVRES complètes, 42 vols. 8vo. fine plates, half-morocco, uncut, Paris, 1818, 4l. 15s.

HICKES'S THESAURUS OF ANGLO-SAXON and NORTHERN LITERATURE, 3 vols. folio, very fine copy in Dutch calf, Oxon. 1765, 7l. 17s. 6d.

JOHNSON'S DICTIONARY, by Todd, 3 vols. 8vo. last edition, new boards, 4l. 10s.; pub. at 7l.

BRITON'S ARCHITECTURAL ANTIQUITIES OF GREAT BRITAIN, 5 vols. royal 4to. large scale, proof of the 364 plates, original edition, half red morocco, gilt leaves, 16s.; published at 42l. J. R. Smith, 4, Old Compton-street, Soho.

CHURTON'S LIBRARY, 26, HOLLES-STREET.—The whole amount received for Subscriptions to this Library is expended in the purchase of New Publications, British and Foreign.—the sale of the Duplicates, after they have gone through the Library, being an ample remuneration to the Proprietor. Country Libraries supplied with Duplicates. Terms.—The Year, 4l. 4s. 6d., 5l. 5s., or 10l. 10s.

NEW BOOKS AND STANDARD WORKS, FOR PERUSAL. Sent to all parts of the Country, and in any quantity, from THE PUBLIC LIBRARY, CONDUIT-STREET, LONDON. TERMS AND HINTS for the FORMATION OF READING and BOOK SOCIETIES sent GRATIS and POST-FREE on application to Messrs. Saunders & Olney as above.

STUDENTS in GEOLOGY, MINERALOGY, or CONCHOLOGY, can be supplied with an extensive assortment of MINERALS, SHELLS, and FOSSILS, or with Elementary Collections, which will greatly facilitate the study of these interesting branches of Science. In two, five, ten, twenty, or fifty guineas each, by J. TENNANT, (late MAWE), 140, STRAND, LONDON.

J. T. gives Private Instruction in MINERALOGY. Tennant has just published 'Fossils of the Coast,' described by Professor Owen in the last Report of the British Association, price 12s. 6d.; also Fourteen Models of Teeth and Bones of the Ichthyosaurus, &c., described by Dr. Mantell in 'Wonders of Geology,' price 3s. 2d.; Geological Models in Wood, in collection by T. Sponwith, Esq., F.G.S., to illustrate the nature of Stratification, Faults, Veins, &c. Sold in sets from 2l. to 5l. each.

Sales by Auction. SOUTHGATE'S ROOMS. By Messrs. SOUTHGATE & SON, at their Rooms, 22, Fleet-street, on MONDAY, July 23, and four following days:

MISCELLANEOUS COLLECTION of A BOOKS, Ancient and Modern; among which will be found, 'The Mansions of England in the Olden Time'—British Gallery of Contemporary Portraits, 3 vols. L. P.—Dugdale's 'Antiquities of Warwickshire Illustrated,' L. P.—Walpole's Works, 10 vols. L.—Supplement to the 'Encyclopædia Britannica,' 6 vols. L.—'Lysons's Magna Britannia,' 6 vols. L.—'Lysons's Environs of London and Wales,' with Supplement, 4 vols. L.—'Malcolm's Londinium Redivivum,' 4 vols. L.—Monthly Review, from the commencement in 1790 to 1838—Edinburgh Review, from the commencement in 1802 to 1835—'Pictorial Shakespeare,' 4 vols. L.—'Shakespeare's Plays,' by Chambers, 4 vols. L.—together with a choice selection of Books of Prints; a 'Familiar Library,' comprising Modern Novels and Romances by Popular Authors; a few Lots of Stationery; also a fine-tuned Chamber Barrel Organ, with all the recent improvements, elegant Gothic case, gilt front pipes, height 8 ft., 6 in., and breadth 4 ft. 3 in.; and a small and valuable collection of Philosophical and Scientific Instruments, comprising Working Model of a Steam Engine, Air Pump, Chemical Cabinet, Microscopes, &c. &c.

Messrs. SOUTHGATE & SON beg to announce that they are preparing for immediate sale, by order of the Assignees, the whole of the valuable STOCK in TRADE of Mr. HENRY LACEY, of Liverpool, comprising a large selection of Works recently published; quantity of Bibles, Prayers, &c. in elegant modern cloth; together with various bindings; together with a large assortment of FANCY STATIONERY, including Albums, Scrap Books, Writing, and other Papers, &c. &c.

* Valuations made of Libraries, Office Furniture, &c.

LIFE ASSURANCE. Just published, in post 8vo. price 7s. cloth, **AN EXPLANATION of the Nature, Advantages, and Importance of ASSURANCES upon LIVES,** and the various purposes to which they may usefully be applied, including also a particular account of the routine required for effecting a Policy, the Principles, Terms, and Tables of Seventy London Assurance Offices, &c.

By LEWIS'S POCOCK, Esq. F.S.A. There are no technicalities in Mr. Pocock's work to prevent its being useful to all; those, therefore, who are likely to have recourse to life insurance will do wisely in consulting this familiar explanation of its nature and advantages. —Glasgow, London: Smith, Elder & Co. 65, Cornhill.

EUROPEAN LIFE INSURANCE COMPANY (established January, 1819), No. 10, Chatham-place, Blackfriars, London. President—Sir JAMES RIVETT CARNAC, Bart. Vice-President—GEORGE FORBES, Esq. Fintona-square, Directors.

Thomas Henry Call, Esq. 1, Mount-street, Grosvenor-sq. William Sargent Esq. Treasurer—chambers, Whitehall John Rivett Carnac, Esq. 46, Devonshire-st. Port. 2nd place J. Steward, Esq. 32, Portman-sq. John Greathed Harris, Esq. 2, J. Thoyts, Esq. 8, Foley-place Geo. Jas. Sullivan, Esq. Arlington-street, and Wilbury-park, Cadogan-place, Sloane-street.

The advantages offered by this Society, in addition to the usual indulgence of going by sea to any part of Europe during peace, are:

1. A participation seasonally by the assured for the whole term of life in the profits realized.
 2. Premiums calculated at lower rates than most offices of the same standing, and which may be paid annually, half-yearly, or quarterly, during life—in a single payment—in a limited number of years by equal payments—or on a decreasing or increasing scale. Insurances may also be effected on the system of paying only half the annual premium for a limited number of years, the other half being payable with interest at the convenience of the assured.
 3. By a regulation peculiar to this Company no claim is opposed unless premeditated fraud or wilful misrepresentation is discovered in the documents on which the insurance was effected. Unintentional error forms no ground of objection.
 4. The usual commission is allowed to solicitors and agents.
- N.B. Agents are wanted in towns where none have yet been appointed.

BRITISH FIRE OFFICE,

Strand and Cornhill.—*Directors, &c.*
 The Hon. G. C. Agar, George G. Mills, Esq.
 James Colquhoun, Esq. George Palmer, Esq.
 Richard S. Cox, Esq. H. C. Plowden, Esq.
 James Henry Deacon, Esq. Henry Webb, Esq.
 Charles Francis, Esq. Richard Williams, Esq.
 Elijah Barwell Impey, Esq. Mr. John Helps, Secretary.
 Established in 1796, for Insurance against Loss or Damage by Fire, on the most equitable terms, and on a principle which conveys PERFECT SECURITY, WITHOUT ANY RESPONSIBILITY whatever to the insured, at *Retained Premiums*.
 Persons effecting Insurance for 2 years, by one payment, are entitled to an IMMEDIATE RETURN, equal to 15 per cent. on both Premium and Duty, WHICH RETURN IS CERTAIN AND NOT DEPENDENT on any contingency. Policies will not be charged for sums of 2000, or upwards, nor to persons removing Insurances from other Offices.
 This Office has always paid for damage by Fire from Lightning. Receipts for the renewal of Policies expiring at Midsummer day, may be had at the principal Offices in the Strand and Cornhill, London, and of their Agents in the Country, who will receive Proposals for new Insurances.

THE WESTMINSTER SOCIETY, established in 1797, for Insurance on Lives and Survivors, and Granting Annuities, No. 49, Strand, and 21, Cornhill, London; and by their Agents in Edinburgh, Dublin, and other places in Great Britain and Ireland. Established on a principle which conveys perfect security to the insured, without any responsibility arising from Partnership.

**TRUSTEES, DIRECTORS, AUDITORS, &c.
 The Hon. George C. Agar, Esq. John Malcolm, Esq.
 Col. Sir A. J. Dalrymple, Bart. George G. Mills, Esq.
 Sir Charles Sullivan, Bart. George Palmer, Esq.
 Sir Henry Willoughby, Bart. Edward Penrhyn, Esq.
 General Sir Loftus W. Dwyer, Esq. Robert S. Robinson, Esq.
 Richard S. Cox, Esq. William Holmes Sumner, Esq.
 Charles Francis, Esq. John Williams, Esq.
 James Henry Deacon, Esq. John Helps, Esq. Secretary.
 W. F. Chambers, M.D.**

All the objects of Life Assurance may be effectually accomplished at this Office with every facility the parties can desire. No admission fees are required, nor any charge made for policies, except the stamp duty.

Two offices recently established having united the name of 'The Westminster' with other designations, the public and friends of the Westminster Society, established in 1797, are requested to take notice that the business of this Society is carried on at No. 49, Strand, and No. 21, Cornhill, London.

N.B. The business of the British Fire Office is carried on in the same houses.

NATIONAL PROVIDENT INSTITUTION.

Enrolled under Acts of Parliament relating to Friendly Societies, for MUTUAL ASSURANCE OF LIVES, ENDOWMENTS, AND ANNUITIES, No. 1, Nicholas-lane, King William-street, London.

Directors.
 C. P. Bousfield, Esq. R. Ingham, Esq.
 John Bradbury, Esq. John Janion, Esq.
 William Cask, Esq. S. Hayhurst Lucas, Esq.
 Thomas Castle, Esq. C. Lushington, Esq.
 James Crofts, Esq. John St. Barbe, Esq.
 John Feltham, Esq. Richard Shortridge, Esq.
 Joseph Hargrave, Esq. Samuel Smith, Esq.
 Thomas Hodgkin, M.D.

Medical Directors.
 J. T. Conquest, M.D. F.R.S. Thomas Bevan, M.D. F.R.S.
 Solicitors—Messrs. Hardwick & Davidson.

Members whose Premiums became due the 1st instant, are reminded that the same must be paid within thirty days from that time.

Among the privileges to be derived by effecting Assurances in this Institution, of Members, is the privilege to secure the benefit of their Policies to Nominees, free of any charge. The whole of the Profits are divided among the Members. The first division will take place on the 1st of January 1857. Prospective members, together with the Report to the Sixth Annual Meeting of Members, held the 15th December last, and every other information, may be obtained by applying at the Office, or of the Agents and Medical Referees in the Country, &c.
 London, 2nd July, 1856. JOSEPH MARSH, Sec.

EAGLE LIFE ASSURANCE COMPANY,

3, Crescent, Bridge-street, Blackfriars, London.

Established by Act of Parliament in 1807.

Directors—John Richards, Esq. Chairman.
 Sir James M'Grigor, Bart. F.R.S., Deputy Chairman.
 The Rt. Hon. Sir G. Ouseley, Charles T. Holcombe, Esq.
 Bart. F.R.S. W. Anderson Peacock, Esq.
 Sir A. Denman Croft, Bart. Peter Skipper, Esq.
 Lieut.-Gen. Sir John Wilson, Esq. John Spurgin, M.D.
 K.C.B. Henry Tunnell, Esq. M.P.
 Chas. B. Baldwin, Esq. M.P. William Wray, Esq.

DISTINCT TABLES FOR MALE AND FEMALE LIFE.

The Directors have caused new Tables to be calculated, in which the relative values of the Lives of the two Sexes are at all ages distinguished; in consequence of this improvement the younger Male Lives are insured at premiums below the ordinary rates; the Female Lives lower than any other office.

Annual Premiums required for the Assurance of 1000, to be received on the death of a

Age.	MALE.			FEMALE.		
	Seven years.	Whole life.	Seven years.	Whole life.	Seven years.	Whole life.
20	£1 6 3	£2 9 6	£1 5 0	£1 15 1		
30	1 12 3	2 10 10	1 9 2	2 3 2		
40	1 17 4	3 4 4	1 13 9	3 15 0		
50	2 12 3	4 12 4	1 17 3	3 15 0		
60	4 7 11	6 18 2	3 7 0	5 11 7		

Prospectus exhibiting this remarkable distinction at every age, may be obtained at the Office of the Company.

FEMALE LIVES.
 By making a distinction between the sexes, a select class is separated from the general population, and receives the full benefit of its own longevity; it is not a reduction effected from the mere spirit of competition; it is the difference demanded by science, and supported by all observation. A female life insured in a Society where no diminution is made in its favour, pays an extra rate for foreign part of a mile, and is more than its own, and for not selecting the Company which offers to it the full advantage of its higher expectation of life, a selection which at once secures in the payment of a reduced rate, an immediate advantage equivalent to a prospective Bonus of 1166, on a Policy of 1000, for a female of thirty, if taken at the rates of insurances commonly used indiscriminately for both sexes.

FOREIGN LIFE INSURANCE.

Life Assurances may be effected for the Australian Colonies, without any extra premium beyond the sea risk; and at moderate rates for the East and West Indies; for any of the British Colonies or Garrisons, for a continued or special sea or climate risk, or for the duration of any military, civil, or diplomatic duty.

THE BONUS.
 Four-fifths of the profits are divided among the assured for the whole term of life, whether residing abroad or at home.

By order, HENRY P. SMITH, Actuary.

SCOTTISH UNION INSURANCE COM-

PANY.—Chief London Office, 49, West Strand.

Instituted 1821, and incorporated by Royal Charter.

LIFE ASSURANCE.—The Directors have been enabled, in consequence of the care exercised in the administration of Lives, to make additions for the last seven years, averaging no less than *fourteen per cent.* on the sums insured. For example: the additions made to Policies of 1000, each, vary from 132.79. 6d. to 148. 17. 6d. according to the age at entry—a result, it is believed, far more favourable to the Assured than any other Company has hitherto accomplished, when the LOW RATES of Premium charged by the Corporation are taken into consideration.

A printed Statement, containing full particulars of this large Bonus, may be had on application to the Secretary.
 The next division of Life Profits will take place in December, 1856, being an interval of five years; and persons entering before the 1st of August next, will enjoy one year's additional rating, and rank at next division of profits for five complete years.

Forms of Proposals may be had at the Offices, No. 49, West Strand, and No. 73, King William-street, City.

F. G. SMITH, Secretary.

PELICAN LIFE INSURANCE OFFICES,

70, Lombard-street, and 57, Charing-cross.—Established 1797.

Directors.
 Matthias Attwood, Esq. M.P. Sir W. Hergate, Bart. and Ald.
 W. Stanley Clarke, Esq. F.R.S. Kirkman D. Hodgson, Esq.
 John Cooper, Esq. R. Henshaw Lawrence, Esq.
 William Cotton, Esq. F.R.S. J. Petty Muspratt, Esq.
 Sir William Curtis, Bart. George Shum Storey, Esq.
 William Davis, Esq. C. Hampden Turner, Esq.
 J. A. Gordon, Esq. M.D. F.R.S. Matthew Whiting, Esq.

R. Tucker, Secretary.

The attention of the Public is directed to the very Moderate Rates now charged by the Company, and to the fact, that upon Tables verified by the actual experience of the office for upwards of forty years.

Insurances may be effected with the Company on the Return or Non-Return system.

The Assured in the Pelican Office are not, as in mutual Assurance Societies, exposed to the liabilities of partnership; and even in the event of a mortality occurring beyond that on which the Tables are founded, the Assured with this Company can suffer no loss, possessing the guarantee of a large paid-up Capital, and the further security of a responsible body of Proprietors, distinct from the Assured.

Prospectuses and every information obtained on application at the Offices as above, or to the Agents of the Company appointed in every principal town in the Kingdom.

CROWN LIFE ASSURANCE COMPANY,

33, Bridge-street, Blackfriars, London.

Directors—George H. Hooper, Esq. Chairman.

Lieut.-Colonel Moody, R.E., Deputy-Chairman.

James Hunter, Esq.

Charles Chippindale, Esq.

James Colquhoun, Esq.

B. D. Colvin, Esq.

Rear-Admiral J. W. D. Dundas, Esq.

C.B. M.P. William Wilson, Esq.

Thomas Harrison, Esq.

Physicians (Dr. C. F. Forbes, F.R.S. K.H., 23, Argyl-street.

Burgess—Samuel Solly, Esq. F.R.S., 1, St. Helen's-place.

Standing Counsel—Charles Ellis, Esq.

Solicitors—Messrs. Hale, Boys, and Austen.

Banquers—Bartholomew England.

Actuary—J. M. Rainbow, Esq.

The advantages of this Office, among others, are,—

1. A participation septennially in two-thirds of the Profits, which may be applied either in reduction of the Premiums, or to augment the sum assured.

The following Bonuses have been assigned to all Policies, of at least three years' standing, effected for the whole duration of Life:—

From 182, to 21, 12, per cent. per annum on the sums assured, varying with the age, being equivalent, on the average, to 26 per cent. on the premiums paid.

SECOND DIVISION, in 1859.

From upwards of 10, to upwards of 34, per cent. per annum on the sums assured, or, on the average, 33 per cent. on the premiums paid for the preceding seven years.

2. The Assurance or Premium Fund is not subject to any charge for interest to proprietors.

3. Permission to pass to Continental ports between *Brest* and the *Ile d'Yeu*.

4. Parties (including Officers of the Army, Navy, East India Company, and Merchant Service,) may be assured to reside in or proceed to all parts of the world, at premiums calculated on real data.

5. No charge but for policy stamps.

The prospectus, tables of rates, &c. to be had at the Office in London, or of the Company's Agents.

F. G. SMITH, Secretary.

COUNTRY FIRE, ROYAL, AND PROVIDENT

LIFE OFFICE, 50, Regent-street, Piccadilly.

Established 1807.

Trustees and Directors.

His Grace the Duke of Rutland, Sir Frederick A. Roe, Bart.

K.G. Alex. Henderson, Esq. M.D.

The Marquis of Northampton John Edward Conant, Esq.

The Rt. Hon. Lord Northwick Andrew Macleay, Esq.

The Earl of Maclefield Frederick Square, Esq.

Sir Wm. Earle Welby, Bart. George Pryme, Esq.

Sir John Osborn, Bart. Glynnie Earle Welby, Esq. M.P.

Sir R. Duckworth King, Bart. Esq. &c. &c.

The advantages offered to the public by the above Offices are such as result from a course of uninterrupted prosperity—the fruits of a prudent and economical management for a period of thirty-five years.

At the present time so many establishments exist, vying with each other in the hope of procuring the benefit to the policyholder, which numerous failures and consequent ruin to thousands of industrious families have proved to be fallacious, that the Directors think they will best discharge their duty to the Proprietors and to the Public by a simple statement of the advantages which have been realized by these Offices.

The COUNTRY FIRE OFFICE has not only settled all claims with promptitude and liberality, but has, from its first establishment, made large returns to the insured.—These amounts at the present time to 132,000.

THE PROVIDENT LIFE OFFICE has at each septennial period divided the whole of the profits, subject to a deduction of about a twentieth part only, among the insured. The benefit of a small secured to lives insured in this Office, may be judged of by the following Table:—

No. of Policy.	£ 1813 & 1820.	1827 & 1834.	Bonus in 1841.	Total of Bonuses.	Sum Insured.
----------------	----------------	--------------	----------------	-------------------	--------------

109 37 221 11 2 357 11 0 304 0 4 1213 2 4 2400

430 38 30 9 11 159 3 0 248 6 0 497 13 3 1000

435 48 257 3 1 506 19 0 744 19 6 1509 1 1 3000

482 46 107 12 12 299 11 11 601 11 4 1000

515 31 72 13 1 134 13 7 204 1 1 411 7 0 1000

992 39 107 8 6 328 8 6 480 7 10 974 4 10 3000

JOHN A. BACUMONT, Managing Director.

Established School Books,

Published by JOHN W. PARKER, West Strand.

BY the Rev. J. R. MAJOR, D.D., Head Master of King's College School, London.

LATIN EXERCISES for Junior Classics. 2s. 6d.

EXCERPTA ex XENOPHONTIS CYROPEDIA, with a Vocabulary and English Notes. 3s. 6d.

EXCERPTA ex HERODOTO, with English Notes. 4s. 6d.

BY the Rev. JOSEPH EDWARDS, M.A. Second Master of King's College School, London, and Classical Examiner to Christ's Hospital.

A PRACTICAL INTRODUCTION to ENGLISH COMPOSITION. 2s. 6d.

THE FIGURES OF EUCLID; with Questions, and a Praxis of Geometrical Exercises. 3s.

LATIN EXERCISES for MIDDLE FORMS. 4s.

THE CATILINE and the JUGURTHA of SALLUST; with ANTHON'S ENGLISH NOTES. 2s. 6d. each.

SELECT EPISTLES of CICERO and PLINY, with ENGLISH NOTES. 4s.

PROGRESSIVE EXERCISES in LATIN LYRICS. 2s.

PROGRESSIVE EXERCISES in LATIN ELEGIACS and HEROICS. 3s.

THE FIRST GREEK READER, founded on the GERMAN of JACOBS, with ENGLISH NOTES. 5s. 6d.

LATIN SELECTIONS: CORNELIUS

NEPOS, PHEDRUS, and OVID'S METAMORPHOSIS, with an Historical and Geographical Outline, Syntax, a Vocabulary, &c. By T. S. CARR, Master in King's College. 3s. 6d.

SELECT ORATIONS of CICERO; with ENGLISH NOTES, Critical and Historical. 3s. 6d.

CROCKER'S RULES and EXERCISES in the USE of the LATIN SUBJUNCTIVE MODE. 4s.

CAMBRIDGE GREEK and ENGLISH TESTAMENT.

The Greek and the English in Parallel Columns on the same Page. 5s. 6d.

GREEK TEXT of the ACTS of the APOSTLES; with NOTES. By H. ROBINSON, D.D. 5s.

SCHOOL GREEK TESTAMENT. 3s. 6d.

FRENCH.

BY the late PROFESSOR VENTOUILLAC. New Editions, revised by J. F. WATTEZ, French Master, King's College, London.

RUDIMENTS of the FRENCH LANGUAGE; a First Reading Book. 2s. 6d.

FRENCH POETRY. ENGLISH NOTES. 2s.

LIVRE DE CLASSE. 5s.

LE TELLIER'S FRENCH GRAMMAR, translated and promoted by English Teaching. By J. L. WATTEZ, of King's College. 4s.

COLLOQUIAL EXERCISES on the most FAMILIAR IDIOMS of the FRENCH LANGUAGE. By J. F. WATTEZ. 2s. 6d.

PRACTICAL EXERCISES on FRENCH PHRASEOLOGY; with a Lexicon of idiomatic Verbs. By PROFESSOR BRASSEUR, of King's College, and its Charter-house. 3s. 6d.

FRENCH SCHOOL CLASSICS; carefully Abridged for the Use of Young Persons of both Sexes.

By MARIN DE LA VOYE, French Master at Adolphe.

TELEMAQUE. 2s. 6d. PIERRE LE GRAND. 2s.

VOYAGES DE CYRUS. 2s. CHARLES XII. 2s.

BELSAIRE. 1s. 6d. GIL BLAS. 4s.

GERMAN.

BY ADOLPHUS BERNAYS, Phil. Doc. Professor in King's College, London.

A COMPENDIOUS GRAMMAR, with an Appendix; and a Dictionary of Prefixes and Affixes. 5s.

FAMILIAR EXERCISES, with Exercises for advanced Students, Copies of Hand-writing, and Notes. 3s. 6d.

EXAMPLES; a Key to the Exercises. 3s.

READER; a Selection from the most popular Writers, with Translations and Notes. 5s.

HISTORICAL ANTHOLOGY. 7s.

POETRY FOR BEGINNERS, with Notes. 4s.

POETICAL ANTHOLOGY. 7s.

LONDON, SATURDAY, JULY 23, 1842.

REVIEWS

Diary and Letters of Madame D'Arblay. Vol. IV. Colburn.

A volume of the Burney revelations is most welcome at this dull season—and the one before us, besides the journalist's curious, though monotonous, details of Palace honours and Palace vexations—of the Queen's sweetness, and Madame Schwellenberg's overbearing jealousy, has a special interest. The earlier part contains copious notices of the Hastings trial, at which Miss Burney was a frequent and eagerly interested attendant; and where she ventured to bandy arguments with Mr. Wyndham, which her Diary records with a wonderful prolixity and clearness—such clearness, indeed, that, could we fancy any portion of the journal retouched, or written for mere effect, it would be these long and coherent conversations. For the present, however, these must be left intact: nor will we divulge how Miss Burney formed a close and satisfactory friendship with one of the royal household, whom she describes under the name of Mr. Fairly:—to the alarming illness of the King and the accompanying circumstances, we shall devote all the space we can spare.

His Majesty's malady, it will be recollected, began to manifest itself in the summer of 1788, when he was ordered to Cheltenham: and the mutilated trees in the Old Well Walk of that frequented Spa, still remain as memorials of the Monarch's eccentricity, which afterwards took such alarming forms. But the first distinct notification of anything very serious, occurs in the *Kew diary* of the 20th of October; and on the 25th, at Windsor, Miss Burney continues:—

"I had a sort of conference with His Majesty, or rather was the object to whom he spoke, with a manner so uncommon, that a higher fever alone could account for it; a rapidity, a hoarseness of voice, a volubility, an earnestness—a vehemence, rather—it startled me inexpressibly; yet with a graciousness exceeding even all I ever met with before—it was almost kindness! Heaven! Heaven preserve him! The Queen grows more and more uneasy. She alarms me sometimes for herself, at other times she has a sedateness that wonders me still more.—Sunday, Oct. 26th.—The King was prevailed upon not to go to chapel this morning. I met him in the passage from the Queen's room; he stopped me, and conversed upon his health near half-an-hour, still with that extreme quickness of speech and manner that belongs to fever; and he hardly sleeps, he tells me, one minute all night; indeed, if he recovers not his rest, a most delicious fever seems to threaten him. He is all agitation, all emotion, yet all benevolence and goodness, even to a degree that makes it touching to hear him speak. He assures everybody of his health; he seems only fearful to give uneasiness to others, yet certainly he is better than last night. Nobody speaks of his illness, nor what they think of it."

"Saturday, Nov. 1st.—Our King does not advance in amendment; he grows so weak that he walks like a gouty man, yet has such spirits that he has talked away his voice, and is so hoarse it is painful to hear him. The Queen is evidently in great uneasiness. God send him better! * * * The King was hunting. The moment he arrived he sent a page to desire to have coffee and take his bark in the Queen's dressing-room. She said she would pour it out herself, and sent to inquire how he drank it. The King is very sensible of the great change there is in himself, and of her disturbance at it. It seems, but Heaven avert it! a threat of a total breaking up of the constitution. This, too, seems his own idea. I was present at his first seeing Lady Effingham on his return to Windsor this last time. 'My dear Effy,' he cried, 'you see me, all at once, an old man.' I was so much affected by this exclamation, that I wished to run out of the room. Yet I could not but recover when Lady Effingham, in her well-meaning but literal way, composedly answered, 'We must all grow old, sir; I am sure I do.' He then produced a walking-

stick which he had just ordered. 'He could not,' he said, 'get on without it; his strength seemed diminishing hourly.' He took the bark, he said; 'But the Queen,' he cried, 'is my physician, and no man need have a better; she is my *Friend*, and no man can have a better.' How the Queen commanded herself I cannot conceive; but there was something so touching in this speech, from his hoarse voice and altered countenance, that it overtook me very much. Nor can I ever forget him in what passed this night. When I came to the Queen's dressing-room he was still with her. He constantly conducts her to it before he retires to his own. He was begging her not to speak to him when he got to his room, that he might fall asleep, as he felt great want of that refreshment. He repeated this desire, I believe at least a hundred times, though far enough from needing it, the poor Queen never uttered one syllable! He then applied to me, saying he was really very well, except in that one particular, that he could not sleep. The kindness and benevolence of his manner all this time was most penetrating: he seemed to have no anxiety but to set the Queen at rest, and no wish but to quiet and give pleasure to all around him. To me he never yet spoke with such excess of benignity: he appeared even solicitous to satisfy me that he should do well, and to spare all alarm; but there was a hurry in his manner and voice that indicated sleep to be indeed wanted. Nor could I, all night, forbear foreseeing 'He sleeps now, or to-morrow he will be surely delirious!'"

"The King is better and worse so frequently, and changes so, daily, backwards and forwards, that everything is to be apprehended, if his nerves are not some way quieted. I dreadfully fear he is on the eve of some severe fever. The Queen is almost overpowered with some secret terror. I am affected beyond all expression in her presence, to see what struggles she makes to support serenity. To-day she gave up the conflict when I was alone with her, and burst into a violent fit of tears. Sometimes she walks up and down the room without uttering a word, but shaking her head frequently, and in evident distress and irresolution. She is often closeted with Miss Goldsworthy, of whom, I believe, she makes inquiry how her brother has found the King, from time to time. The Princes both came to Kew, in several visits to the King. The Duke of York has also been here, and his fond father could hardly bear the pleasure of thinking him anxious for his health. 'So good,' he says, 'is Frederick!' To-night, indeed, at tea-time, I felt a great shock, in hearing, from General Budé, that Dr. Heberden had been called in. It is true more assistance seemed much wanting, yet the King's rooted aversion to physicians makes any newcomer tremendous. They said, too, it was merely for counsel, not that his Majesty was worse."

"WEDNESDAY, NOVEMBER 5TH.—O dreadful day! My very heart has so sickened in looking over my memorandums, that I was forced to go to other employments. I will not, however, omit its narration. 'Tis too interesting ever to escape my own memory, and my dear friends have never yet had the beginning of the thread which led to all the terrible scenes of which they have variously heard. I found my poor Royal Mistress, in the morning, sad and sadder still; something horrible seemed impending, and I saw her whole resource was in religion. We had talked lately much upon solemn subjects, and she appeared already preparing herself to be resigned for whatever might happen. I was still wholly unsuspecting of the greatness of the cause she had for dread. Illness, a breaking up of the constitution, the payment of sudden infirmity and premature old age for the waste of unguarded health and strength,—these seemed to me the threats awaiting her; and great and grievous enough, yet how short of the fact! I had given up my walks some days; I was too uneasy to quit the house while the Queen remained at home, and she now never left it. Even Lady Effingham, the last two days, could not obtain admission! she could only hear from a page how the Royal Family went on. At noon the King went out in his chaise, with the Princess Royal, for an airing. I looked from my window to see him; he was all smiling benignity, but gave so many orders to the postillions, and got in and out of the carriage twice, with such agitation, that again my fear of a

great fever hanging over him grew more and more powerful. Alas! how little did I imagine I should see him no more for so long—so black a period! When I went to my poor Queen, still worse and worse I found her spirits. She had been greatly offended by some anecdote in a newspaper—the *Morning Herald*—relative to the King's indisposition. She declared the printer should be called to account. She bid me burn the paper, and ruminated upon who could be employed to represent to the editor that he must answer at his peril any further such treasonable paragraphs. I named to her Mr. Fairly, her own servant, and one so peculiarly fitted for any office requiring honour and discretion. 'Is he here, then?' she cried. 'No,' I answered, but he was expected in a few days. I saw her concurrence with this proposal. The Princess Royal soon returned. She came in cheerfully, and gave, in German, a history of the airing, and one that seemed comforting. Soon after, suddenly arrived the Prince of Wales. He came into the room. He had just quitted Brighthelmston. Something passing within seemed to render this meeting awfully distant on both sides. She asked if he should not return to Brighthelmston? He answered yes, the next day. He desired to speak with her; they retired together. * * * Meanwhile, a stillness the most uncommon reigned over the whole house. Nobody stirred; not a voice was heard; not a step, not a motion. I could do nothing but watch, without knowing for what: there seemed a strangeness in the house most extraordinary. At seven o'clock Colum came to tell me that the music was all forbid, and the musicians ordered away! This was the last step to be expected, so fond as his Majesty is of his Concert, and I thought it might have rather soothed him: I could not understand the prohibition; all seemed stranger and stranger. * * * Colonel Goldsworthy was called away: I heard his voice whispering some time in the passage, but he did not return. Various small speeches now dropped, by which I found the house was all in disturbance, and the King in some strange way worse, and the Queen taken ill!—The two gentlemen spoke of the state of the house, but in terms so alarming, I had not courage to demand an explanation; I dreadfully awaited to catch their meaning, gradually, as I could, unasked. At length, General Budé said he would go and see if any one was in the music-room. Mr. Fairly said he thought he had better not accompany him, for as he had not yet been seen, his appearance might excite fresh emotion. The General agreed, and went. * * * I really had no utterance, for very alarm, but my look was probably sufficient; Mr. Fairly kindly saved me any questions, and related to me the whole of the mysterious horror! O my dear friends, what a history! The King, at dinner, had broken forth into positive delirium, which long had been menacing all who saw him most closely; and the Queen was so overpowered as to fall into violent hysterics. All the Princesses were in misery, and the Prince of Wales had burst into tears. No one knew what was to follow—no one could conjecture the event. * * * He stayed with me all the evening, during which we heard no voice, no sound! all was deadly still! At ten o'clock I said, 'I must go to my own room, to be in waiting.' He determined upon remaining downstairs, in the Equerries' apartment, there to wait some intelligence. We parted in mutual expectation of dreadful tidings. In separating, he took my hand, and earnestly recommended me to keep myself stout and firm. If this beginning of the night was affecting, what did it not grow afterwards! Two long hours I waited—alone, in silence, in ignorance, in dread! I thought they would never be over; at twelve o'clock I seemed to have spent two whole days in waiting. I then opened my door, to listen, in the passage, if anything seemed stirring. Not a sound could I hear. My apartment seemed wholly separated from life and motion. Whoever was in the house kept at the other end, and not even a servant crossed the stairs or passage by my rooms. I would fain have crept on myself, anywhere in the world, for some inquiry, or to see but a face, and hear a voice, but I did not dare risk losing a sudden summons. I re-entered my room and there passed another endless hour, in conjectures too horrible to relate. A little after one, I heard a step—my door opened—and a page said

I must come to the Queen. I could hardly get along—hardly force myself into the room; dizzy I felt, almost to falling. But, the first shock passed, I became more collected. Useful, indeed, proved the previous lesson of the evening: it had stilled, if not fortified my mind, which had else, in a scene such as this, been all tumult and emotion. My poor Royal mistress! never can I forget her countenance—pale, ghastly pale she looked; she was seated to be undressed, and attended by Lady Elizabeth Waldegrave and Miss Goldsworthy; her whole frame was disordered, yet she was still and quiet. These two ladies assisted me to undress her, or rather I assisted them, for they were firmer, from being longer present; my shaking hands and blinded eyes could scarce be of any use. I gave her some camphor julep, which had been ordered her by Sir George Baker. 'How cold I am!' she cried, and put her hand on mine; marble it felt! and went to my heart's core! The King, at the instance of Sir George Baker, had consented to sleep in the next apartment, as the Queen was ill. For himself, he would listen to nothing. Accordingly, a bed was put up for him, by his own order, in the Queen's second dressing-room, immediately adjoining to the bedroom. He would not be further removed. Miss Goldsworthy was to sit up with her, by the King's direction."

It is almost needless to point out how the miserable suspense of a scene like the above, is heightened, when political necessities and private feelings come into collision. As time passed, the confusion increased. Dr. Warren was sent for, to consult with Dr. Heberden and Sir George Baker: and the Queen was waiting on the rack of anxiety for his opinion, to determine her own line of conduct:—

"At length news was brought that Dr. Warren was arrived. I never felt so rejoiced; I could have run out to welcome him with rapture. With what cruel impatience did we then wait to hear his sentence! An impatience how fruitless! It ended in information that he had not seen the King, who refused him admittance. This was terrible. But the King was never so despotic; no one dared oppose him. He would not listen to a word, though, when unopposed, he was still all gentleness and benignity to every one around him. Dr. Warren was then planted where he could hear his voice, and all that passed, and receive intelligence concerning his pulse, &c., from Sir George Baker. We now expected every moment Dr. Warren would bring her Majesty his opinion; but he neither came nor sent. She waited in dread incessant. She sent for Sir George—he would not speak alone: she sent for Mr. Hawkins, the household surgeon; but all referred to Dr. Warren. Lady Elizabeth and Miss Goldsworthy earnestly pressed her to remove to a more distant apartment, where she might not hear the unceasing voice of the unhappy King; but she would only rise and go to the little dressing-room, there to wait in her night-clothes Dr. Warren's determination what step she should take. At length Lady Elizabeth learnt among the pages that Dr. Warren had quitted his post of watching. The poor Queen now, in a torrent of tears, prepared herself for seeing him. He came not. All astonished and impatient, Lady Elizabeth was sent out on inquiries. She returned, and said Dr. Warren was gone. 'Run! stop him!' was the Queen's next order. 'Let him but let me know what I am to do.' Poor, poor Queen! how I wept to hear those words! Abashed and distressed, poor Lady Elizabeth returned. She had seen Colonel Goldsworthy, and heard Dr. Warren, with the other two physicians, had left the house too far to be recalled; they were gone over to the Castle, to the Prince of Wales. I think a deeper blow I have never witnessed. Already to become but second even for the King! The tears were now wiped; indignation arose, with pain, the severest pain of every species."

It was decided by the physicians, that Her Majesty should remove to another apartment separate from that of the patient, the first care of whom, then, devolved on the Prince of Wales. The discomfort to all parties of such a position must be manifest, when we remember the differences and estrangement which existed

between father and son. Nor was the distress and confusion lessened by the reluctance to use those means of control and superintendence to which one in humbler life would have been mercifully subjected. One night, on leaving the Queen very late—

"In passing through the dressing-room to come away, I found Miss Goldsworthy in some distress how to execute a commission of the Queen's: it was to her brother, who was to sit up in a room adjoining to the King's; and she was undressed, and knew not how to go to him, as the Princes were to and fro everywhere. I offered to call him to her; she thankfully accepted the proposal. I cared not, just then, whom I encountered, so I could make myself of any use. When I gently opened the door of the apartment to which I was directed, I found it quite filled with gentlemen and attendants, arranged round it on chairs and sofas, in dead silence. It was a dreadful start with which I retreated; for anything more alarming and shocking could not be conceived: the poor King within another door, unconscious any one was near him, and thus watched by dread necessity, at such an hour of the night!"

On the following morning—

"While I was yet with my poor royal sufferer this morning the Prince of Wales came hastily into the room. He apologised for his intrusion, and then gave a very energetic history of the preceding night. It had been indeed most affectingly dreadful! The King had risen in the middle of the night, and would take no denial to walking into the next room. There he saw the large congress I have mentioned: amazed and in consternation, he demanded what they did there? Much followed that I have heard since, particularly the warmest eulogy on his dear son Frederick, his favourite, his friend. 'Yes,' he cried, 'Frederick is my friend!'—and this son was then present amongst the rest, but not seen! Sir George Baker was there, and was privately exhorted by the gentlemen to lead the King back to his room; but he had not courage: he attempted only to speak, and the King penned him in a corner, told him he was a mere old woman—that he wondered he had ever followed his advice, for he knew nothing of his complaint, which was only nervous! The Prince of Wales, by signs and whispers, would have urged others to have drawn him away, but no one dared approach him, and he remained there a considerable time, 'Nor do I know when he would have been got back,' continued the Prince, 'if at last Mr. Fairly had not undertaken him. I am extremely obliged to Mr. Fairly indeed. He came boldly up to him and took him by the arm, and begged him to go to bed, and then drew him along, and said he must go. Then he said he would not, and cried 'Who are you?' 'I am Mr. Fairly, sir,' he answered, 'and your Majesty has been very good to me often, and now I am going to be very good to you, for you must come to bed, sir: it is necessary to your life.' And then he was so surprised, that he let himself be drawn along just like a child; and so they got him to bed. I believe else he would have stayed all night!"

We can imagine nothing worse than such a constant object of watchfulness, superadded to the onerous duties of court service. Yet, beyond this, there were natural jealousies, caused by the Prince's commands laid on the King's attendants. When the court removed to Kew, the Regent, in person, took an active part in the arrangement of the household, himself marking out the apartments to be occupied, by writing the name of the party, with chalk, on the door. All this time, too, the very name of a Regency was wornwood to every one attached to George the Third. Discreetly scrupulous in refraining to record anything that dropped from her Royal Mistress in moments of involuntary confidence, Miss Burney has told us little of this melancholy period, beyond general hints as to the above causes of disquietude. One or two passages, however, are journalised in her best manner. One evening, when unusually sad and dispirited, she was aroused by a tap at the door, and, the entrance of her ally, Mr. Fairly, who announced

that a change for the better had taken place in His Majesty:—

"What, then, have not you heard—how much the King has talked? And—and, have not you heard the charge?' No; I have heard not a word of any charge.' 'Why, then I'll tell you; the King has been calling them all to order for staying so long away from him. 'All the equerries and gentlemen here,' he said, 'lost their whole time at the table, by drinking so much wine and sitting so long over their bottle, which constantly made them all so slow in returning to their waiting, that when he wanted them in the afternoon they were never ready; and—and Mr. Fairly,' says he, 'is as bad as any of them; not that he stays so long at table, or is so fond of wine, but yet he's just as late as the rest; for he's so fond of the company of learned ladies, that he gets to the tea-table with Miss Burney, and there he stays and spends his whole time.'"

Here was a delicate distress for one so prone to indulge in such luxuries as the super-sensitive authoress of 'Evelina'!—and she devotes a good paragraph to the proprieties which ought thenceforth to regulate her intercourse with Mr. Fairly, as gravely as if the remark touching it had been dictated by sane prudence, not mental aberration. Then follows the removal to Kew, to which allusion has already been made.—Kew was an uncomfortable as well as melancholy prison-house, being only intended as a summer retreat. With the new year, 1789, however, a better time seemed to dawn; and the last extract we shall give will prepare the reader for the news of the King's recovery, which closes the volume. According to her physician's order, Miss Burney took daily walking exercise, and, conceiving herself safe from the chance of all encounter—

"I strolled (says our authoress, February the 2nd,) into the gardens: I had proceeded, in my quick way, nearly half the round, when I suddenly perceived, through some trees, two or three figures. Relying on the instructions of Dr. John, I concluded them to be workmen and gardeners; yet tried to look sharp, and in so doing, as they were less shaded, I thought I saw the person of his Majesty! Alarmed past all possible expression, I waited not to know more, but turning back, ran off with all my might. But what was my terror to hear myself pursued!—to hear the voice of the King himself loudly and hoarsely calling after me, 'Miss Burney! Miss Burney!' I protest I was ready to die. I knew not in what state he might be at the time; I only knew the orders to keep out of his way were universal; that the Queen would highly disapprove any unauthorized meeting, and that the very action of my running away might deeply, in his present irritable state, offend him. Nevertheless, on I ran, too terrified to stop, and in search of some short passage, for the garden is full of little labyrinths, by which I might escape. The steps still pursued me, and still the poor hoarse and altered voice rang in my ears:—more and more footsteps resounded frightfully behind me,—the attendants all running, to catch their eager master, and the voices of the two Doctor Willis loudly exhorting him not to heat himself so unmercifully. Heavens, how I ran! I do not think I should have felt the hot lava from Vesuvius—at least not the hot cinders—had I so run during its eruption. My feet were not sensible that they even touched the ground. Soon after, I heard other voices, shriller, though less nervous, call out 'Stop! stop! stop!' I could by no means consent: I knew not what was purposed, but I recollected fully my agreement with Dr. John that very morning, that I should decamp if surprised, and not be named. My own fears and repugnance, also, after a flight and disobedience like this, were doubled in the thought of not escaping; I knew not to what I might be exposed, should the malady be then high, and take the turn of resentment. Still, therefore, on I flew; and such was my speed, so almost incredible to relate or recollect, that I fairly believe no one of the whole party could have overtaken me, if these words, from one of the attendants, had not reached me, 'Doctor Willis begs you to stop!' 'I cannot! I cannot!' I answered, still flying on, when he called out, 'You must, ma'am; it hurts the King to run.' Then, in-

deed, I
to agony
had got
ants of I
slackene
but suc
wholly i
any oth
As they
happy, t
that, to
show so
undaunt
of the a
were wi
'Why'
impossi
tone of
to meet
satisfied
please h
combat
think I
courage
looked
tenacem
eyes.
put bot
kiss my
exquisi
his arm
crush I
him till
traordin
smiled
his cust
but the
and the
and pr
reason.
cident,
recover
to elate
He not
me, the
tonisat
to feeli
of his
his fee
When
alive,
from t
selves,
not co
tain no
his mi
remain
withou
contro
state c
say I—
pound
all his
give y
ous to
much
of ph
quite
and th
and
questi
how
to ex
laugh
oppre
you d
but c
aston
your
adde
famil
asser
"
in th
sudd
ting'
he g
prom
I th

deed, I stopped—in a state of fear really amounting to agony. I turned round, I saw the two Doctors had got the King between them, and three attendants of Dr. Willis's were hovering about. They all slackened their pace, as they saw me stand still; but such was the excess of my alarm, that I was wholly insensible to the effects of a race which, at any other time, would have required an hour's recruit. As they approached, some little presence of mind happily came to my command: it occurred to me that, to appease the wrath of my flight, I must now show some confidence: I therefore faced them as undauntedly as I was able, only charging the nearest of the attendants to stand by my side. When they were within a few yards of me, the King called out, 'Why did you run away?' Shocked at a question impossible to answer, yet a little assured by the mild tone of his voice, I instantly forced myself forward, to meet him, though the internal sensation which satisfied me this was a step the most proper, to appease his suspicions and displeasure, was so violently combated by the tremor of my nerves, that I fairly think I may reckon it the greatest effort of personal courage I have ever made. The effort answered: I looked up, and met all his wonted benignity of countenance, though something still of wildness in his eyes. Think, however, of my surprise, to feel him put both his hands round my two shoulders, and then kiss my cheek! I wonder I did not really sink, so exquisite was my afflict when I saw him spread out his arms! Involuntarily, I concluded he meant to crush me; but the Willis's, who have never seen him till this fatal illness, not knowing how very extraordinary an action this was from him, simply smiled and looked pleased, supposing, perhaps, it was his customary salutation! I believe, however, it was but the joy of a heart unbridled, now, by the forms and proprieties of established custom and sober reason. To see any of his household thus by accident, seemed such a near approach to liberty and recovery, that who can wonder it should serve rather to elate than lessen what yet remains of his disorder! He now spoke in such terms of his pleasure in seeing me, that I soon lost the whole of my terror; astonishment to find him so nearly well, and gratification to see him so pleased, removed every uneasy feeling, and the joy that succeeded, in my conviction of his recovery, made me ready to throw myself at his feet to express it. What a conversation followed! When he saw me fearless, he grew more and more alive, and made me walk close by his side, away from the attendants, and even the Willis's themselves, who, to indulge him, retreated. I own myself not completely composed, but alarm I could entertain no more. Everything that came uppermost in his mind he mentioned; he seemed to have just such remains of his flightiness as heated his imagination without deranging his reason, and robbed him of all control over his speech, though nearly in his perfect state of mind as to his opinions. What did he not say!—He opened his whole heart to me, expounded all his sentiments, and acquainted me with all his intentions. The heads of his discourse I must give you briefly, as I am sure you will be highly curious to hear them, and as no accident can render of much consequence what a man says in such a state of physical intoxication. He assured me he was quite well—as well as he had ever been in his life; and then inquired how I did, and how I went on; and whether I was more comfortable? If these questions, in their implication, surprised me, imagine how that surprise must increase when he proceeded to explain them! He asked after the conjutrix, laughing, and saying, 'Never mind her!—don't be oppressed—I am your friend!—don't let her cast you down!—I know you have a hard time of it—but don't mind her!' Almost thunderstruck with astonishment, I merely curtsied to his kind 'I am your friend,' and said nothing. Then presently he added, 'Stick to your father—stick to your own family—let them be your objects.' How readily I assented!

Again he repeated all I have just written, nearly in the same words, but ended it more seriously; he suddenly stopped, and held me to stop too, and putting his hand on his breast, in the most solemn manner, he gravely and slowly said, 'I will protect you!—I promise you that—and therefore depend upon me!' I thanked him; and the Willis's, thinking him

rather too elevated, came to propose my walking on. 'No, no, no!' he cried, a hundred times in a breath; and their good humour prevailed, and they let him again walk on with his new companion. He then gave me a history of his pages, animating almost into a rage, as he related his subjects of displeasure with them, particularly with Mr. Ernst, who, he told me, had been brought up by himself. I hope his ideas upon these men are the result of the mistakes of his malady. Then he asked me some questions that very greatly distressed me, relating to information given him in his illness, from various motives, but which he suspected to be false, and which I knew he had reason to suspect: yet was it most dangerous to set anything right, as I was not aware what might be the views of their having been stated wrong. I was as discreet as I knew how to be, and I hope I did no mischief; but this was the worst part of the dialogue. He next talked to me a great deal of my dear father, and made a thousand inquiries concerning his 'History of Music.' This brought him to his favourite theme, Handel; and he told me innumerable anecdotes of him, and particularly that celebrated tale of Handel's saying of himself, when a boy, 'While that boy lives, my music will never want a protector.' And this, he said, I might relate to my father. Then he ran over most of his oratorios, attempting to sing the subjects of several airs and choruses, but so dreadfully hoarse that the sound was terrible. Dr. Willis quite alarmed at this exertion, feared he would do himself harm, and again proposed a separation. 'No! no! no!' he exclaimed, 'not yet; I have something I must just mention first.' Dr. Willis, delighted to comply, even when uneasy at compliance, again gave way. The good King then greatly affected me. He began upon my revered old friend, Mrs. Delany; and he spoke of her with such warmth—such kindness! 'She was my friend!' he cried, 'and I loved her as a friend! I have made a memorandum when I lost her—I will show it you.' He pulled out a pocket-book, and rummaged some time, but to no purpose. The tears stood in his eyes—he wiped them, and Dr. Willis again became very anxious. 'Come, sir,' he cried, 'now do you come in and let the lady go on her walk,—come, now you have talked a long while,—so we'll go in,—if your Majesty pleases.' 'No, no!' he cried, 'I want to ask her a few questions;—I have lived so long out of the world, I know nothing!' This touched me to the heart. We walked on together, and he inquired after various persons, particularly Mrs. Boscawen, because she was Mrs. Delany's friend! Then, for the same reason, after Mr. Frederick Montagu, of whom he kindly said, 'I know he has a great regard for me, for all he joined the opposition.' Lord Grey de Wilton, Sir Watkin Wynn, the Duke of Beaufort, and various others followed. He then told me he was very much dissatisfied with several of his state officers, and meant to form an entire new establishment. He took a paper out of his pocket-book, and showed me his new list. This was the wildest thing that passed; and Dr. John Willis now seriously urged our separating; but he would not consent; he had only three more words to say, he declared, and again he conquered. He now spoke of my father, with still more kindness, and told me he ought to have had the post of Master of the Band, and not that little poor musician Parsons, who was not fit for it: But Lord Salisbury, he cried, 'used your father very ill in that business, and so he did me! However, I have dashed out his name, and I shall put your father's in,—as soon as I get loose again!' This again—how affecting was this! 'And what,' cried he, 'has your father got, at last? nothing but that poor thing at Chelsea? O fie! fie! fie! But never mind! I will take care of him! I will do it myself!' Then presently he added, 'As to Lord Salisbury, he is out already, as this memorandum will show you, and so are many more. I shall be much better served; and when once I get away, I shall rule with a rod of iron!' This was very unlike himself, and startled the two good doctors, who could not bear to cross him, and were exulting at my seeing his great amendment, but yet grew quite uneasy at his earnestness and volubility. Finding we now must part, he stopped to take leave, and renewed again his charges about the conjutrix. 'Never mind her!' he cried, 'depend upon me! I will be your friend as long as I live!—I here pledge myself to be your

friend!' And then he saluted me again just as at the meeting, and suffered me to go on. What a scene! how variously was I affected by it! but, upon the whole, how inexpressibly thankful to see him so nearly himself—so little removed from recovery!

With this long passage, we must conclude; and, indeed, concerning the painful subject to which our extracts have been devoted, the volume contains little more to tell. On another occasion, we shall search its pages for those livelier sketches and amusingly prosy recitals, in which we cannot but think Fanny Burney is incomparable.

My Last Tour and First Work; or a Visit to the Baths of Wildbad and Rippoldsau. By Lady Vavasour. Cunningham.

It is an ill-natured and ungenerous sneer which is contained in the proverb concerning the pavement of 'the courts below.' Good intentions, however ineffective, have at least a subjective merit. The remark, we admit, has its limits. To lose an eye in the awkward attempt of a good Samaritan at removing a mote, or even to have the bridge of one's nose broken by a well-intentioned effort to scare away a wasp, is, indeed, 'too bad'; and there are awkwardnesses both of head and of hand, which no excellence of intention can excuse; but, within limits, and especially where the falling off extends only to a negative ill-consequence, all ill-natured sarcasm were better avoided. Lady Vavasour, accordingly, in putting forward charity as the motive for publication, makes a *primâ facie* case in her favour. If this be deemed but cold comfort to the pride of authorship, the lady has to thank herself for coming thus before the public in *formâ pauperis*. Had she made her advances in a more independent guise, and stood upon the merits of her work, the critics might have sanctioned her claim; for without assigning to the volume high praise for either depth of observation or accuracy of reflection, it is entitled to favourable mention as a light and agreeable narrative, containing good common-sense views of men and things.

It has long been an opinion with us, that the great and overflowing fountain of bad logic is bad feeling; and that whether it arise from a heart naturally hardened, or from the influence of a false position, there is no cause which so effectually blinds men to the force of consequence, and contents them with such silly arguments. So, on the contrary, a hearty love of humanity, a desire to discharge faithfully our great duty to our neighbour, and to do unto others what we would they should do unto us, are powerful agents in clearing the intellect, and, except where fashion, prejudice, and conventional doctrines too powerfully interfere to lead astray, they contribute largely, even with the uneducated, towards the attainment of sound conclusions. The good intentions of Lady Vavasour are therefore entitled to respect, not merely for their own sake, but for the share they have had in turning her speculations to a good account. She is evidently a person of an enthusiastic temperament, and her desire to be useful sometimes hurries her into crude opinions. She is also occasionally betrayed into exaggeration; but the prevailing qualities of her pages are, good sense, good nature, and an exemption from very many of the heresies and schisms which prevail among the upper classes. With this turn of mind, her narrative, which is in general easy and flowing, is, as may be supposed, much interspersed with reflections of a semi-political, or rather socio-political character; her observations abroad, leading her back to the memory of things at home. But this is without pedantry or pretension; rising naturally out of the subject; and, if not always very profound, they are above the

staple of our lady travellers, the pupils of English boarding-schools, or of domestic governesses, with whom accomplishments are the one thing needful, and all knowledge that transcends *appearances*, or leads beyond the scene-shifting grooves of Society, are worse than anathema. But, after all, samples will afford the best illustration of this lady's work; and we take the first that presents itself: it is "a reading" upon flowers:—

"This sort of things [things of this sort] appear trifles; but they are in fact matters of great consequence, inasmuch as everything that draws heart to heart, and mind to mind—that contributes, even in a remote degree, to unite human creatures in kind and affectionate remembrance to each other, is of consequence.

Flowers are one of the many beautiful gifts of God to man. The cultivation of them improves his health and raises his mind, if he *thinks* about them. * * In the working classes, much might be done in the improvement of their morals, habits, and manners, by encouraging them to pass their few leisure hours in the cultivation of flowers. The difference between two families, one loving flowers, the other loving gin, at the end of twelve months, would be very striking. It may be said, all cannot have gardens. True; but all may have a few flowers in their windows, and many more than they imagine; for a little wooden balcony could easily be made outside of every window; and the very circumstance of tending these flowers, would induce them occasionally to open the windows, and give air, that best tonic to the poor, exhausted, typhus-fevered inhabitant. But here the window-tax comes in, especially in towns, as a monster of evil, to debar the human race from what God and nature have declared absolutely necessary to their existence and well-being. The number of windows to the houses on the Continent must be remarked by all travellers. The cottages in this forest are one line of windows, giving light and life to all within; and by the adoption of the stove, all are kept warm and comfortable at a small expense. * * If all my readers could witness the state of the rooms inhabited by the poor, within a stone's throw of the splendid shop-windows of magnificent Regent Street, they would shrink from it with horror. They would be tempted to break through the walls to give the fainting creatures light and air; or transport them to the heath-covered mountain, and let them rather lie under the natural rock, than within the walls of the unnatural, pestilential prison they were found in. To the ladies of the creation, flowers are a boon beyond all prize; and if the gentlemen knew it, to them, through their wives. The lady who is fond of her garden, and delights in the cultivation of it, will not seek expensive pleasures abroad. Home is everything to her, and if her husband is wise enough to encourage her taste, he is a happy man. Women feel deeply little attentions; and, in all probability, there are few who would be bad wives, if they had kind, affectionate, well-judging husbands."

In these few sentences, there is nothing, perhaps, very startling by its originality; but still they contain evidence of thought, and an habitual regard to the best interests of humanity. In the present state of the poor of these kingdoms, to think of giving them a taste for rearing flowers, seems little better than insult; yet we are bold to say that the facts are as Lady Vavasour has stated them. Had her thoughts prevailed amongst the wives of our legislators, and if, through their influence, the interests of the unrepresented had been as carefully looked to, as the spirit of these remarks implies, the want, the desolation of the working classes, their agony of despair, and, as Report bids us fear, the cherished hope of vengeance, would never have been. It were an absurd and unwarranted conclusion to say, that encouragement of the love of flowers among the working classes would, in the present state of things, or, indeed, under any circumstances, have a decided influence on the morals of the people; but if the feeling which suggests such a step had prevailed, so as to have insured a proper and honest attention to the

ventilation, the draining, the decency, and the salubrity of the dwellings of the poor, if common efforts had been made to do justice to the working classes, society at large would be more prosperous, and the flowers might have sprung up spontaneously, by the side of other blessings, into the bargain. All this, Lady Vavasour has not expressed in *terminis*, but it exists inclusively in her text, and must lie at the bottom of her mind.

Again, apropos to the festival in honour of the invention of printing, which took place at Stuttgart, the authoress, with an eye to her own country, (for she is an Irish woman,) remarks:

"Such fêtes as these keep up the memory of things gone by, and, if of things good and useful, are pleasant and healthful both to body and mind; but if only continued to set one party against another, to bloat the one and cow the other, better bury the statue [in allusion to the statue of King William, the centre of Dublin party demonstration] that creates such division, and sink the day in eternal oblivion. Why not change our fêtes, and let one be in honour of printing? No country on earth has made such use of it, none has benefited so much by it, and yet we let it pass by unnoticed."

Adverting to the subject of Fashion, the writer gives a dialogue, which she states herself to have overheard, and which we must endeavour to abridge:—

"I was sitting one day with a friend upon a bench in the pretty walk along the river, watching the passing crowd, when a gentleman and two ladies sat down upon the one just before us, and continued the following conversation: one of the ladies was then speaking. 'It does not signify, argue as you will,—the power of fashion is greater than falsehood or folly. * * With their poor bodies, what has she not done? Ruffled them down to the wrists, then bared them up to the shoulders: filled them up to the ears, and now she has bared them down again to the back bone. * * She alters the shape of man, that mighty lord of the creation too, but she has more power over his mind than his body. When once she has him at one of your great universities she begins her attack, but always with the rich and noble; the others are beneath her notice, though they generally follow in her train. She persuades them they are not come there to read—that is beneath their dignity; they are too rich to work, therefore they may play; they are sent there for fashion's sake, therefore their business is to learn to be fashionable. * * This is an admirable preparation for their introduction into the world, when their college education is finished. * * The night is passed in a lounge at the opera, or a peep at the theatre, before the great business, the exciting ecstasy of life commences—gambling. There, night after night, she binds her victims, first in a chain of gold, and then of iron. The once gay, rich, proud, son of nobility, sinks into the low-spirited, distressed, poor gentleman, shunned by his equals, dunned by his creditors. Many a young Englishman has sought safety and concealment in this country, who, with a different education, might have done honour to his own.' The gentleman now began to speak. 'I acknowledge the wondrous powers of fashion. * * But, where, Madame, have you learnt such an overdrawn picture of the education of our youth? Believe me, it is highly coloured, although, I am sorry to say, there is much truth in it.' * * 'Monsieur, I learn it from yourselves; I am told it from those who have suffered from it, who have lamented the loss of time in their early days. * * And I leave it to your own judgment to answer, if you think the education of a monk five hundred years ago is a proper education for a gentleman in these enlightened days?'"

Lady Vavasour's objection to the English system of education is very decided, and it breaks out on more than one occasion: not always, indeed, supported by the strongest reasons; but yet, on the whole, who shall say that it is not well founded? But we must bring the dialogue to its termination:—

"Ah! Monsieur! you English are a curious people! * * Of your physical courage no one will doubt; your victories abroad have long proved that;

but your moral courage at home is very doubtful. You consent to be governed by a number of conventional laws, made by what you call the fashionable world, which you all dislike, and not only acknowledge there is no sense in, but that they are most inconveniently nonsensical. * * You submit to customs which entail not only an *useless* expense in your households, but are highly injurious to your fortunes—give you pain rather than pleasure, because your neighbours do it. * * When I was last in England, I observed the great trouble the lady of the house took in the arrangement of the table: there must be an equal number of dishes, one must match the other; and what with putting on and taking off, the arms of the servants were constantly over your shoulders. Then the cloth is to be taken off, and all the things upon it. I never saw the lamps and candlesticks removed without expecting to be set on fire by one, or covered with oil from the other. Then your late hours? all complain of them. Many have declared to me, they leave their country and live abroad, on account of them. Now will you not acknowledge you are slaves? Ah, mon ami! with all your boasted freedom, you are conventional slaves.' * * They all rose, and left us conjecturing who they could be. I guessed the lady to be German; my friend thought she was French. I leave the reader to judge how far she was correct in her opinion of England."

We must give a short specimen more, illustrative of the author's mode of treating the descriptive part of her work. It relates to Weimar: "Of all the places we have ever been in, Weimar is the most agreeable for society, and the best to send a young man to, just entering the world. Every young Englishman, with a proper introduction, is received there, and treated as noble; he is invited to court twice a week in the evening, and occasionally to dinner. The Grand Duke treats them with great kindness and good nature, and the Grand Duchess with all the dignity and grace so peculiarly her own. * * There is considerable state kept up at the court, and when the Grand Duke and Duchess sit down to cards, every person in the room goes up to the table, first of her Imperial Highness, and makes a curtesy or bow, as the case may be, and then to the Grand Duke; this is a very troublesome custom, for the first two deals are spent in returning the salute, which is always done most cordially. The Grand Duke plays Cassino—this is quite a different game from ours, and requires a ready reckoner to play it well. * * After the salutation at the card tables the young people go into the gallery, where there is a table covered with prints; a few of the married ladies go with them, the others sit working their tapestry at a round table in the corner. The first evening we passed at court there were not any cards. Twelve ladies sat round a large table; I was placed next to the Grand Duchess: in a few minutes one of the court ladies laid a number of pieces of flannel, each one yard long, upon the table; she then gave a skein of scarlet worsted and a needle, with one of the pieces of flannel, to each lady. The Grand Duchess also took one: and we all began to overcast the edge of the flannel; it was not difficult to discover the use of the work, and I was soon told the reason for it. The poor imagined the nobles were too proud to think of their wants, and her Imperial Highness wished to prove to them it was not so. It also set the court a good example. During the activity of the fingers the tongues were not idle; conversation went on most briskly, and I learnt more of what was going on in Europe in an hour and a half, than I should have done in England in a year. We all finished our task, and the little blankets were folded up and put into their baskets to be distributed the next day to the poor."

This is an amusing instance of the self-importance of the great, and of the measure they take of what is passing in the minds of mankind. Here, indeed, good intentions, however creditable to the Grand Duke and his family, are too evidently good for nothing: but to continue our extract—

"Weimar was the Athens of Germany in the time of the late Grand Dukes and Goethe—all the talent of Germany assembled there,

And the scent of the roses will hang round it still;

for still the society is superior to other towns. Nothing improves the mind of woman so much as an association with well-informed men; and although it may appear singular, it is true, that they can do more good and generally less harm to her, than her own sex. The ladies of Weimar are better informed, and have more agreeable conversation than one generally meets with. If it had the climate of Italy, it would indeed be difficult to leave it. They have many amiable customs we should do well to follow, though we might think them childish, and laugh at what is very good sense; for as man cannot be always the philosopher, it is excellent to be easily amused, and wonderfully improves the temper,—that frightful sunken rock so many split upon."

And now, for its own sake, as well as for that of the little Irish Agricultural school that depends upon its fortunes, we heartily wish this work success.

The Sacred Books of the Orientals, containing the Chou-king, the Se-chou, the Laws of Menü and the Koran—[*Les Livres Sacrés de l'Orient, &c.*] By G. Pauthier. London and Paris, Firmin Didot.

AFTER having remained in torpidity for more than two thousand years, Asia is now compelled, by the irresistible force of circumstances, to take an active part in the onward movement of humanity, and is affected to its remotest recesses by the impulsive energies of European activity. There are steamboats on the Indus; the commercial resources of the Euphrates and the Tigris have been explored; the barriers which fenced the Celestial Empire have been broken down; British diplomacy has reached Bokhara, and the manufacturers of Lancashire influence the markets in Samarcand. The intellectual character of nations is one of the most important elements in the formation of their material prosperity; we cannot profit by the physical wealth of Asia until we obtain some acquaintance with the mind by which that wealth is produced and guarded; the curiosity of the philosopher is united to the anxiety of the merchant, and the same information which enlarges the bounds of scientific knowledge gives guidance and direction to the enterprise of trade.

Asia is an entire continent of traditions and recollections; its traditions go back to the infancy of mankind; its living strata belong to the primitive formation; in its deserts are concealed the organic remains which point out the early phases of human society with more of certainty and precision than geological fossils show the former conditions of the earth. In the East we must search for the links which have been lost in the chain of the history of society, and these links are to be found not in the masses of the pyramids, the darkness of the tombs, or the ruins of the temples, but in the creeds, habits of thought and principles of action which guide the millions of an existing population.

The work of M. Pauthier is intended to place before us the means of estimating the moral basis on which the civilization of the Chinese, the Hindus and Mohammedans is based. He has very lightly touched on another and more important inquiry, whether there are any and what elements common to the three systems, which would prove them to be identical in their origin, however varied in their developments, and which would thus enable us approximately to ascertain what may be called the moral capital with which human society commenced its operations in the production of institutions. It is not our purpose to enter on so deep and extensive an investigation; we shall rather confine ourselves to indicating some of the principles which Europeans have been accustomed to arrogate exclusively to themselves, but which it is consoling to find are the general property of humanity.

The basis of the Chinese morality is simply

and forcibly stated in the third classic book (Lun-yu, ch. IV. sect. 15)—"The doctrine of our master consists entirely in possessing rectitude of heart, and loving one's neighbour as one's self." This doctrine is not proclaimed as a novelty by Confucius; though he lived about six centuries before our era, he declares that this noble maxim was a tradition from the sages of a very remote antiquity, which it was his mission to proclaim to posterity. According to his views, man is endowed with a moral sense, by which he can discover, for himself, the path of immutable rectitude as it was definitely traced by the great Creator. We are therefore directed to look for truth within ourselves;—"Those who are able to comprehend the law of their own existence, and the duties which it involves, are enabled to comprehend the nature of other men and the law of their existence, and to teach them the duties they must observe in order to fulfil the mandates of heaven." These principles are best developed in the Lun-yu, which is not a systematic treatise, but a series of conversations of a desultory character, but which, for that very reason, exhibit the moral principles of Confucius as doctrines familiar and habitual to the minds of his followers.

The laws of Menü and the Koran are too well known for us to enter on any examination of their precepts; but the collection of Chinese moralists is, for the first time, placed before the public in a convenient and accessible form. We commend the work to all who are interested in studying the history of civilization, and to all who desire to know what are the moral elements of the Asiatic societies, with which our intercourse, already extensive, must soon be increased to an incalculable amount.

History of a Breton College under the Empire—[*La Petite Chouannerie, &c.*] By A. F. Rio. Moxon.

A work by the author of 'L'Art Chrétien' cannot but command attention, and, being published in England, has every claim on literary courtesy. We recognize the devotional spirit and the attachment to antique usages and form, for which M. Rio is distinguished, and respect his patriotism and Breton feeling. Enough genius has of late years emanated from that distant province, to convince the rest of France that Brittany has too long lain under the imputation of barbarism: "Her rivals were honoured, while she was wronged and scorned." But a bright day has gleamed upon her, and, like her oppressed sister, Erin, she has shown that, concealed in the dark mines of her bosom, are gems which, polished and brought to light, can outshine the brightest in the country. Chateaubriand's name, like Moore's, at once proves that her sons have genius, such as nowhere else can be found: her historians, too, of late, have been many; and though twenty years ago Mrs. Stothard (now Mrs. Bray) asserted that, after diligent inquiry, she could find no traditions, no legends, no history, no songs, no records, it has been since proved, that no country has more, both as ancient as the time of Romance, and as modern as the time of Napoleon. Mrs. Bray regretted when she wrote her tour, that Brittany was so unlike Wales in this particular, little imagining that teeming legends and ceaseless songs were to be found in that land of romance, or that they would ever start into being at the touch of the wand of a Villemarqué. Not a stone, a tree, a rock in Brittany, but has its tradition; and the only wonder is, that the tourist should be so unlucky in her inquiries as to make them of the few persons who could not tell her of Merlin the Bard, of Fontenelle the Leaguer, of the spirits of King Grallon and his daughter, who still scream above the rocks, and of the wailing souls of shipwrecked mariners

who demand burial of the faithful. She might have heard a legend attached to every crumbling castle, wall, and manor house: but when a traveller takes a thing for granted, he does not like to have his ideas disturbed, and it requires twenty years, at least, to clear away an error made by a writer who has travelled in a region little known.

M. Rio, in the work before us, confines himself to the relation of all the struggles for freedom made by a determined band of boy-patriots against the veterans of Napoleon's army. Whether their attempt was as judicious as it was romantic, or whether it deserved blame rather than praise, has nothing to do with this history, which is merely a relation of facts, respecting which every one may judge for himself. The high and noble feeling of the fathers of these boy-heroes, when they rose *en masse* and battled for their homes and hearths, their children and their country—when they disputed every inch of ground with the blood-thirsty savages who came with fire and sword to destroy them—when they cast every selfish thought to the winds and followed the banners of their chiefs with Highland devotion, scorning to yield, and hiding, like the hunted band of Pelayo, in wilds and rocks, houseless, homeless, persecuted, and proscribed—this high and noble feeling who can doubt,—who can do other than admire? But resistance to a conqueror such as Napoleon, after the fearful storm had subsided, when a chance of tranquillity might exist in obedience and the tortured country revive from its ashes, is scarcely an act to claim commendation from any but bards and romance writers. If David had had no higher support than his sling and stone and dauntless courage, he might have encountered the Giant in vain; but the strong hand of the Deity was on his side, and the colossal foe was vanquished. But no miracle could be effected by the prayers of the powerless priests, returned, after a wretched exile, to a deserted shrine; and the stripling warriors were only urged and excited to their ruin, without a hope that their immolation would benefit their country. It is painful to read of the progress of enthusiasm so dangerously directed, and to follow the course of events which led to the massacre of the innocents and the weeping for children who "were not." We are cold enough to disapprove at all times of these hopeless revolts, and to deplore the violence which no reasonable advisers sought to subdue; we therefore keep our pity for the bereaved mothers of these unhappy children, and cannot but censure the injudicious instigators of a useless and fatal plot.

There is, however, much curious and romantic matter in M. Rio's book, whatever may be the feelings it excites. He thus describes the state of mind among the boys at the College of Vannes, reopened in 1804, and the influences to which they were subjected.

During the first years it was merely mutual instruction in contemporary history, confined to the town or canton of the narrator, and as there was not a single parish of Morbihan which had not its recorder, every fragment of the annals of the *chouannerie* made its impression on their ardent minds. The recollections of classic antiquity became feeble in comparison to these relations in the imaginations of these simple children, over whose cradles tears and blood had been shed. Happy was he amongst them, who, having had a chief of Chouans or a martyr-priest in his family, possessed sufficient eloquence to place their exploits or their sacrifice in a glowing light! Once acknowledged as a superior storyteller, he immediately became an object of veneration, and gained an ascendancy such as a great poet may do over hearts open to admiration. Besides the true accounts of military valour and resistance, and the persecutions practised against those who would not bend the knee to a revolutionary idol, the memories of the men and children of Brittany were

stored with a multitude of legends, some tender, some terrible; every pupil could contribute his share in these mysterious tales, which were generally connected with the links existing between the visible and invisible world. Thus around their innocent minds a radiant atmosphere of Faith was formed, which long defied all the power of rationalism. It would be in vain to seek, even in the acts of martyrs or the legends of the Middle Ages, more affecting recitals than those which thus circulated in the college, and which, to children so poetically credulous, had all the fragrance of newly-blown flowers. With what simplicity of faith did they cling to sentiments, which formed a sort of supplement of popular canonization to the public belief! but also with what bitterness did they propagate all those legends which might be called *revenging records*, and which, like the Eumenides of Paganism, were attached to certain persons and families reputed accursed! With what harshness did they interpret certain passages of the Bible on retributive justice, when, for instance, they were accustomed to point out two poor young girls, who sat working all day in the recess of a window, and to recount to each other, according to a tradition too well believed by the common people, that these girls were condemned by Divine law, in expiation of the crimes of their parents, never to leave their home, for the moment they stepped over the threshold their shoes became full of blood!

These poetical dreams, or miserable superstitions, as we should call them, appear to have been encouraged and fostered as religious treasures by the unfortunate priests, whose sufferings and experience had not taught them either wisdom or prudence; and, when it required a strong hand to put down these childish follies, when it became necessary to remove these superannuated visionaries from the college and the parishes round, all were looked upon alike as victims to a hateful tyranny which ought to be resisted to the death.

M. Rio says, that it "was neither a spirit of faction nor of vengeance, which caused the Breton priests to raise their voices against the existing government, nor dare any one assert that our priests used their influence to degrade our characters." What more degrading, more debasing than these fanatical superstitions? But where was the discretion, the christian philosophy which should have taught a college of hot-headed boys to endure with dignity, or, at least, not rush headlong to certain destruction? Benjamin Constant said he would prefer, if he must choose, a religious yoke to political despotism; but were these children fit instruments in such a cause? or were they capable of deciding? If Brittany is not to be considered as forming part of France, the Bretons may be commended for that which M. Rio seems to admire, their leaguings with Spain against France in order to maintain their independence—if they are Frenchmen, such an act, which happened in the time of Louis XIV., was treason to their country.

The evidences of patriotism and high feeling, exhibited amongst the hero boys, anxious to show their contempt of the authorities, remind us forcibly of the conduct of our own *boy-heroes*, not only of Westminster, Winchester, and Eton, but all the boy-schools we ever heard of; and our quarrels between Town and Gown, though less heroic in intention, are strangely similar to the taking of the wall and *making chains* on the public walks to oppose the townspeople's passage and create a riot. The historical or political knowledge which roused these young patriots, and induced them to rise with enthusiasm on the return of the King, is not very apparent when they were obliged to ask each other whether *Louis XVIII. was a Bourbon!*

Mrs. Norton, Mr. Wordsworth, Landor, Milnes, and several French authors, have contributed poems to the volume, laudatory of the young Breton heroes, or bewailing the sorrows of their mothers. We give a few lines as speci-

mens, as most of the poems are too long for insertion in full:—

The Breton Mother.

It was a Breton Mother,
Long widowed and alone—
From her brow the smile of gladness,
From her lips the smile was gone;
But the light of Beauty lingered
Despite the trace of tears,
For her gentle cheek was faded
With sorrow more than years.
Her anxious gaze was resting
On a proud and stately boy,
With a mingled sweet expression,
Half mournfulness, half joy;
The Widow's look, confessing,
Though sharp life's trial-pains,
All is not Desolation!
While Mother-hood remains!
Fair was the face she gazed on,
Not only unto her,
(For love's bright wand of magic
Can unreal gifts confer),
But, even to the stranger,
A mien more bright and bold
Ne'er struck the dull and careless,
Or warned and won the cold.
Courage and thought were blended
On his forehead proud and fair,
Around it careless waving
The locks of raven hair;
While from his brow's dark shadow
The light of those young eyes
Gleamed like a lake whose waters
Reflect the midnight skies.
Still gazed they on each other,
That Mother and her son,
In his look that resolution
Which spoke of childhood gone;
But silence was between them—
The silence of a spell;
Alas, she dared not question,
She knew her fate too well:
And he... how should he comfort
That fond foreboding heart?
How often that sharp sentence,
Yet warm her they must part?

Wordsworth's lines are called

The Eagle and the Dove.

Shade of Caractacus, if spirits love
The cause they fought for in their earthly home,
To see the Eagle ruffled by the Dove
May soothe thy memory of the chains of Rome.
These children claim thee for their sire; the breath
Of thy renown, from Cambrian mountains, fans
A flame within them that despises death,
And glorifies the truant youth of Vannes.
With thy own scorn of tyrants they advance,
But truth divine has sanctified their rage.
A silver cross enshrouded with Flowers of France,
Their badge, attests the holy right they wage.
The shrill defiance of the young crusade
Their veteran foes mock as an idle noise;
But unto Faith and Loyalty comes aid
From Heaven, gigantic force to beardless boys.

We conclude with some verses by Mr. Milnes, to which we cordially say, Amen!

For honest men of every blood and creed
Let green *La Vendée* rest a sacred spot!
Be all the guilt of Quiberon forgot
In the bright memory of its martyr-deed!
And let this little book be one more used
Whence sympathies may spring, encumbered not
By circumstance of birth or mortal lot,
But claiming virtue's universal need!
And as those two great languages, whose sound
Has echoed through the realms of modern time,
Feeding with thought and sentiments sublime
Each other and the listening world around,
Meet in these pages, as on neutral ground,
So may their nations' hearts in sweet accord be found!
O France and England! on whose lofty crests
The day-spring of the future flows so free,
Save where the cloud of your hostility
Settles between and holy light arrests,
Shall ye, first instruments of God's behests,
But blunt each other? Shall Barbarians see
The two fair sisters of civility
Turn a fierce war against each other's breasts?
No! by our common hope and being, no!
By the expanding might and bliss of Peace,
By the revealed fatuity of war,
England and France shall not be foe to foe:
For how can earth's store of good increase,
If what God loves to make, man's passions still will mar?

OUR LIBRARY TABLE.

Encyclopædia Britannica.—This important work is now completed, by the publication of a Supplemental Part, containing Title-pages, Preface, and a General Index. This last is a most important addition to an Encyclopædia, by which is brought under the eye, at once, all the information directly or indirectly bearing on a subject, and necessarily scattered under different heads throughout the work.

On the Growth of Plants in Closely-Glazed Cases, by N. B. Ward.—"Most of the facts detailed in the following work have been long before the public" (Preface); we shall not, therefore, again enter on the subject. With respect, however, to one chapter, 'On the Application of the Plan to Improving the Condition of the Poor,' we must say, that such an application seems to us very closely limited. In the stricter sense of the word "poor," we fear that, at the present moment, any recommendation of the sort would be felt as an insult. The father of a family, who could afford even the very trifling expense mentioned by the author, must be far removed from the state which is usually meant by poverty; and, independent of the outlay of money and of time, necessary to the establishment and care of one of Mr. Ward's cases, it may be doubted whether the interception of light, arising from its occupation of a window, would not render it rather an evil than a good to the humbler classes. For the rest, those classes are fond of flowers; and where the means and appliances are not wanting, the discovery will probably recommend itself to their notice. Alas! that this should be the exception and not the rule.

A Practical Treatise on the Laws, Customs, and Regulations of the City and Port of London, by A. Pulling.—Compiled with industry, and will be found a useful manual by all who desire information respecting the municipal privileges and government of the "ancient and honourable city."

The History of Surrey, by E. W. Bravley, &c. Vol. II. Part I, concludes the hundred of Woking, and commences that of Chertsey,—and preserves the character heretofore given of the work.

Lectures on the Liturgy, by the Rev. J. Bental.—The expositions and comments in these lectures are written in a calm reflective spirit, and are well calculated to excite the attention of youth to the purport of the prayers, which constant repetition has a tendency to render a mere form.

The Norrison Prize Essay, by J. S. Howson, M.A.—The object of this essay is to prove, that both in the Old and New Testament "Eternal life is offered to mankind through Jesus Christ only." The author reasons with learning and acuteness, and some of his illustrations are felicitous.

Meditations and Reflections for a Month.—This work consists of a series of short essays on religious subjects; it possesses no claim to depth or originality, and betrays in many passages a tendency to dogmatism.

Ireland and the Irish Church, by the Right Hon. Lord Viscount Lifford.—Advocating the establishment of what is called "Orange" policy in Ireland.

Walham-on-Sea.—A tale written in defence of the Oxford Tracts, with what success we are unable to say, for our patience could not carry us beyond the first dozen pages.

Bagster's Critical Greek and English Testament.—An excellent edition of the Greek Testament, and every way creditable to its publisher.

List of New Books.—Conversations on English Grammar, by Helen Wood, new edit. 12mo. 3s. 6d. bds.—The Shooter's Hand-book, by the Author of 'The Oakleigh Shooting Code,' post 8vo. 6s. cl.—The Elements of Latin Grammar for the Use of Schools, by Richard Hiley, new edit. 12mo. 2s. 6d. sheep.—Scriptural Instruction for the Least and the Lowest, Part III., new Testament, 18mo. 4s. cl.—Monthly Journal of Medical Science, edited by J. R. Cornack, for 1841, 8vo. 7s. 6d. cl.—Novus Græcorum Epigrammatum, by T. Johnson, A.M., 12mo. 3s. 6d. sheep.—Stonehenge, or the Romans in Britain, by Malachi Mouldy, 3 vols. royal 12mo. 3ls. 6d. bds.—Howe's (T. H.) Lessons on the Globes, with Appendix, 12mo. 7s. 6d.—Erichsen's (John E.) Practical Treatise on Diseases of the Scalp, coloured plates, 8vo. 10s. 6d. cl.—Harison (C. H. R.) on Deformities of the Spine and Chest, with drawings, 8vo. 8s. cl.—Grammar, Lessons by a Lady (designated as a supplement to 'Mary's Grammar') 18mo. 2s. 6d. cl.—A Steam Voyage to Constantinople, by the Rhine and Danube, by the Marquess of Londonderry, 2 vols. 8vo. with plates, 24s. cl.—Barnes's (W.) Elements of Linear Perspective, 12mo. 2s. 6d. cl.—Marillier's (Henri) Summary of French Grammar for the Royal Military College, Sandhurst, new edit. 12mo. 8s. cl.—Laurie's Tables of Simple Interest, from 3 to 9 per cent., including a table of 2 per cent., 8vo. 7s. cl., ditto, from 2½ to 5 per cent., new edit. 8vo. 11s. 1s. cl.—Cottage on the Common, and the Little Gleaners, 8s. 16mo. 2s. cl.—Reynolds's Practical Arithmetic, new edit. 12mo. 2s. cl.—Picturesque Excursions, with 400 illustrations, 8s. 5s. 6d. cl. gilt.—Cotton, from the Pod to the Factory, 18mo. 6d. awd.—Bipon Tales, 2 vols. 18mo. 5s. cl.—True Tales from Froissart, new edit. square 16mo. 4s. 6d. cl.—Darby's Diary and Letters, Vol. IV., crown 8vo. 10s. 6d. cl.—Popular Objections to Prophecy, by George Ogilvy, 12mo. 4s. bds.—Family Essays on the Creation, Preservation, &c. of the Universe, 8vo. 12s. cl.

THE LATE BISHOP OF MEATH.

[From a Correspondent.]

The death of Doctor Arnold has been soon followed by that of his friend the Bishop of Meath, whose eminence as a scholar and divine gave weight to his zealous advocacy of national education, and every measure calculated to promote the genuine principles of both civil and religious freedom. The Irish nation, and more especially the Irish Church, could ill afford to lose such a man; his attachment to his country and his religion was only equalled by the wisdom with which he discovered what were the means by which the true interests of each might be promoted. He spared neither his health, his time, nor his purse, to advance the cause of both, and it may now be mentioned, that though his name as an author was not prominently before the public, he was a very prolific writer in periodicals and pamphlets, principally as an advocate of church reform and enlightened toleration.

CHARLES DICKINSON was a native of the south of Ireland; his family, though not wealthy, was respectable, and he was permitted to indulge the ardent love of study which he displayed at a very early age. His old schoolfellows speak of him as a pale, "retiring boy, foremost in the class, and last in the play-ground," ardent to obtain distinction, but nervously shrinking from commendation, not popular as a companion, but much beloved as a friend, on account of his readiness to assist those of inferior abilities in the performance of their tasks. At an early age he entered the Dublin University, where he soon became distinguished as a successful competitor for college honours; he retained however the same modest and almost bashful habits for which he was remarkable at school; his contemporaries often rallied him on his shyness, and related amusing anecdotes of his running away to hide himself, after obtaining a premium or certificate, in order to escape congratulations. He took a very high scholarship, and then began to prepare for the fellowship examination. The candidates for fellowship in the Dublin University have always formed a class apart from the rest of the students: they unite in a society of their own, read and study together, assist each other's researches and investigations, and generally devise some little plan of literary recreation to relieve the tedium of scientific pursuits. Dickinson was the poet and critic of his little circle; though deeply read in mathematics and physics, he was fond of the graces and elegancies of light literature; indeed, to the last hour of his laborious and useful life, he kept himself abreast with the current literature of the day, and loved to turn occasionally from graver matters to discuss points of criticism in letters to private friends. A heap of such letters lies before us, and they exhibit a rare combination of deep thought, unaffected earnestness, and child-like simplicity. At the proper season he appeared as a candidate on the fellowship bench. Very few in Dublin have ever obtained fellowship at the first trial, but it was believed by those who witnessed the examination—which is always public and *à viva voce*—that Dickinson had succeeded. On the day of declaration, it appeared, that another had gained the fellowship, but that he had won Madden's prize, which is given for distinguished answering to unsuccessful candidates. The circumstance excited attention and discussion at the time, but we have no wish to revive its memory, for there was scarcely any election of fellows during the provostship of the late Bishop of Ferns, which did not occasion some dissatisfaction and dispute. Before another opportunity offered, Dickinson married the daughter of Mr. Abraham Russell, of Limerick, and as the celibacy statute was then unappealed, he was of course disqualified for office in the University.

He now entered into orders and obtained a curacy in Dublin; after some time he took his degree of Doctor of Divinity, and was generally regarded as a person whom his merits would have recommended to promotion, but for the well-known liberality of his opinions. On Doctor Whately's appointment to the see of Dublin, the bar to Doctor Dickinson's advancement was removed; the Archbishop appointed him his secretary and private chaplain, and presented him with the living of St. Ann's, which, though not a very valuable piece of preferment, is one of the best in the Archbishop's gift, the see of Dublin not being rich in patronage. The strict friendship between the prelate

and his chaplain, based on a perfect unity of principle, taste, and sentiment, excited much attention and some jealousy. "I was said to have been the making of him," writes the Archbishop in a letter announcing the death of his beloved friend, "I wish I had such an art; but it was just as the Indians make a diamond, by picking it out of the gravel and sand in which it lies, and setting it."

Dr. Dickinson's appointment to the see of Meath was one of the latest made by the Whig government in Ireland. It was the spontaneous and unsolicited act of Lords Fortescue and Morpeth; a fact thus stated by the prelate himself in a letter to a friend:—"You will have seen my appointment to Meath in the newspapers; I wished to communicate it to you first myself, but I was bound to secrecy till it was announced officially. The statement in the *Evening Post* respecting non-solicitation by me or for me is perfectly correct."—On the same subject Archbishop Whately writes:—"He would have disdained to ask preferment, and never mentioned his name to Ministers (not being consulted by them) in connexion with a bishopric, nor would he have endured that I should."

Dr. Dickinson's promotion was, with one solitary exception, applauded by men of all parties. The Irish papers most opposed to him in politics, congratulated the Ministers on having made so good a selection.

The letters subsequently collected and published under the title of 'The Bishop,' were addressed to Dr. Dickinson at the time of his appointment. They were, as they professed to be, the production of a layman, but the materials were supplied by one of the highest authorities in the Church. The Bishop of Meath, after this publication, became more closely united in literary friendship with the author, and freely communicated to him his views and plans for the service of their common church and common country. His sentiments on the important subject of Candidates for Holy Orders, are too instructive to be omitted; in addition to their didactic value, they throw much light on the character of the man. He thus wrote:—"I have been indebted to you for many kind letters and acts which I have not thanked you for; I have, however, been much engaged, especially in examining for Orders, which is sometimes a very oppressive duty. There are frequently conflicting feelings—the desire to show all kindness to the individual, and the responsibility towards God, frequently draw different ways. A clear case of ignorance is of course easily disposed of. Moderate attainments, if there be hope of improvement, should be leaned to with indulgence. I am also disposed to allow great latitude with regard to opinions, provided at least the individual seems not unwilling to concede a latitude to his neighbours. But when clever men present themselves, who tell you they mean to denounce those who dissent from them as in a state of damnation;—or, again, if you perceive that they are likely to lead their flocks into Antinomian principles—holding themselves principles which escape only by very acute metaphysical reasoning from decided Antinomianism—this creates perplexity, and presses not merely on the intellect, but the spirits. I have had this perplexity lately, and am not yet free from it."

The Bishop of Meath took a lively interest in the Oxford Tract controversy. In addition to several former publications, he had prepared, just before his death, a Charge, in which he had traced the coincidence between the Tractarians and the Transcendentalists. It was to have been delivered on the very day he died, in the fiftieth year of his age. His general character may be best described by extracting a portion of a letter from Archbishop Whately to the writer of this imperfect notice:—"You have already copiously described him in 'The Bishop'; you have only to select. You know how he was characterized by the union of qualities as *opposite as virtues can be*;—such patient mildness and intrepid firmness—such acuteness and such caution—such unwearied activity, with such quickness—such public spirit with private affection—such tact and address with child-like openness and guileless simplicity—distinguished powers in abstract science, and uncommon common sense—extraordinary theological attainments, with absence of bigotry—such piety, with distinguished cheerfulness—universal kindness, with utter contempt of popularity. . . . Be ye wise as serpents, and harmless as doves, was a text on which his life was the best

commentary I ever knew. He was adored by his clergy, who mourn deeply the loss of an excellent friend to themselves, as well as an unspeakable blessing to the Church. God's will be done!"—Such testimony requires neither addition nor commentary; it is true to the very letter,—

And ne'er held marble in its trust
Of one more justly lov'd, the dust.

FOREIGN CORRESPONDENCE.

ANCIENT CITIES OF LYCIA.

THREE Englishmen, in the month of February last, commenced a tour into the interior of Lycia—the Rev. E. T. Daniell, with especial reference to the ancient geography, Lieut. Spratt to the modern, and Mr. Edward Forbes to the natural history of the country. The following is an extract from a private letter from Mr. Daniell, dated—

Rhodes, June 6.

Upon the whole, we have been as successful as the time and the circumstances permitted. We can add to any map hitherto published the names of *eighteen* ancient cities, the sites of which we have unquestionably ascertained by inscriptions. We have found about as many sites, hitherto unvisited, but, of some of these, we cannot positively assert the name, having found no inscription giving it. Of those eighteen, the names of which I have in my inscription book, some had been visited before, but wrong names attached to them, from an unsuccessful search after inscriptions. I will give you first the list, and then tell you a little about each in turn:—1, Araxa; 2, Phellus; 3, Candyba; 4, Cynææ; 5, Sura; 6, Corydalla; 7, Rhodiapolis; 8, Idebessus; 9, Acalissus; 10, Gage; 11, Lagon; 12, Termessus Major; 13, Lagbe; 14, Cibyra; 15, Bubon; 16, Balbura; 17, Cenoanda; 18, Arsra.

1, Araxa was a city in the valley of the Xanthus, and its ruins are those to which Mr. Fellows attached the name of Massicytus. I have an inscription unquestionably proving the site to be that of Araxa. 2, Phellus, or at least the port of Phellus, was situated a little to the south-east of Antiphellus, at some ruins called Paienduri, while the city itself was situated inland, near a tomb on the road to Cassabar, on which, as on one at Paienduri, the name of Phellus occurs. 3, Candyba is found at a place still called Gandeve, in the plain of Cassabar. 4, Cynææ. We found three distinct cities, all bearing this name, and none of them the Cyana of Mr. Cockerell, near Port Tristome. The change from the singular to the plural in the way of writing this name by ancient authors, is thus accounted for. Three, if not four cities were doubtless united under one head, and that a new and grand one, built with Roman magnificence and luxury—a theatre, baths, splendidly decorated agora, and innumerable sarcophagi. The two smaller cities of this name contain monuments of what is called Lycian architecture, and with Lycian inscriptions; but the great Cynææ has neither. Between it and the sea, or rather between it and Sura, is another set of ruins, which I imagine were those visited by Mr. Cockerell. These we did not visit.

5, Sura is correctly placed in Col. Leake's map, but it does not appear that the site was visited by him or any other traveller. There are Lycian tombs and inscriptions, and evidence of the existence of a temple to the "Surian Apollo."

Corydalla is situated on the edge of the plain of Phinela, and its place is marked by Mr. Fellows as Gage, viz. Haggivellet. Rhodiapolis is situated on a neighbouring mountain, about three-fourths of an hour from Corydalla. The true Gage stood on the sea shore, as the Stadiumus would lead one to expect.

Acalissus and Idebessus are cities in a magnificent valley running northwards between the mountains of Solyma and those of Arycanda. No Frank had visited them. As far as a travelling library can enlighten one, there is no mention by ancient authors of Acalissus; and Idebessus, or Eidebessus, is said to have been an early name of Antiphellus. These two cities, however, are far apart. There are two more sites in this great valley, containing no certain indication of their former names, and although I have strong ground for believing one to be Apollonia, there is such danger in hazarding these speculations, without corroborative evidence, that we let it pass.

The situation of Lagon is altogether a very odd affair. It is at least sixty geographical miles from

the sites hitherto attributed to it, but it clears up several difficulties in the march of Manlius, and proves that, so far from having gone slowly from Cibra into Pamphylia, the Roman consul went as quickly as he could. There are some circumstances connected with the inscriptions at Lagon, of peculiar interest, with reference to Livy's account, but it is too long a tale for a letter.

Termessus might well be called, as its inscriptions call it, *Ἡ ΑΑΜΠΡΑ ΤΕΡΜΗΣΕΩΝ ΤΩΝ ΜΕΙΖΟΝΩΝ ΗΙΟΛΙΣ*. Its extent, position, and remains fully justify the title; while the real position of the pass of Termessus, in the valley three miles below the city, quite explains Arrian's account of Alexander's taking the one without attempting the siege of the other. By having ascertained the site of Abyra, as well as Lagon, and travelled nearly along the most direct road from the one to the other, we found the true Lake Caralites, which, after all, is not a lake but a marsh, as Livy has described it,—a marsh, however, of from eight to ten miles in length. The northern side of this great marsh is strewn at different distances with ancient capitals, columns, &c. On one of these I found the name of Lagbe, sounding very like that of the modern Turkish town in the immediate neighbourhood.

Cibra had been visited a year ago by a friend of mine, but he did not look for inscriptions. Three travellers had bivouacked under the hill on which Babon stood, but were prevented, by want of time, ascending to the ruins. I found one inscription only, but containing the name two or three times. Balbura and Enoanda were visited by Mr. Forbes and Mr. Hoskyn, of the *Beacon*, last year; but they brought no positive proofs of their identity, which induced us to take them in our tour. We thus complete the four cities of the Cibrates. We have, unfortunately, no positive proofs as to Podalia, Choma, and Amelas; but I am inclined to believe that Amelas was at Eski hissar, Podalia possibly at Armothu, two or three hours from Almalu, and Choma on the ridge of the mountains overlooking Araxa, and that portion of the valley of the Xanthus. These ruins were also visited last year by Mr. Hoskyn and Mr. Forbes. Almalu was certainly not an ancient site.

The last of our cities was Arsa, situated between Tlos and Xanthus, and overlooking the former.

This is the extent of the positive information, which we gained as to the sites and names of cities in this district of Asia Minor; but, by taking the mountain route from Phaselis into the plain of Perga, instead of following the shore at the foot of Clnax, we have ascertained the route (because the only route) of Alexander's army. And if I am not altogether under a delusion, there is strong presumptive evidence as to who the Thracians were who acted as conductors or guides on the occasion. Of this however hereafter. We were unfortunately prevented visiting Arnas, the site of Arna, the plague being there at the time when we were in the neighbourhood. Of our eighteen cities, all, with the exception of Lagon, Termessus, and Cibra, formed at one time part of ancient Lycia. To these fifteen, if we add, the six great sites ascertained by Mr. Fellows, viz. Xanthus, Pinar, Tlos, Cadyanda, Sidyma, and Arycanda; and the seven previously found by Capt. Beaufort and others, viz. Telmessus, Patara, Antipellus, Myra, Limyra, Olympus, and Phaselis, we have twenty-eight cities of Lycia, of which the sites are ascertained by inscriptions. I am not sure if Apherre can properly be added to the number, but Arna certainly may. There is very little doubt of many others. Mr. Fellows's Calynda is most probably Dædala, Calynda itself being supposed to be at some ruins bearing the name of Calchan. On the borders of Caria, Caunus was found two years ago by Mr. Hoskyn, and I found an imperfect inscription among his papers, which left no doubt of its identity. Thus much touching the geography of this most interesting district. A word or two on two subjects of considerable importance, in the present state of our knowledge of the ancient inhabitants of Lycia, their language and their art. From the observations I have been able to make, it does, I confess, appear to me almost certain that the language called Lycian was not the language of the conquered inhabitants of the country, but of their conquerors only. The obelisk at Xanthus contains avowedly the most ancient inscription in this language. I believe that, instead of that language

being spoken down to the time of the erection of the obelisk, as has been supposed, from remote antiquity, it was then a new language in the country. Upon the language itself, its structure, &c., it would be presumption to say a word. I speak merely of the age at which it was spoken in Lycia, and of the people to whom it belonged; and from the monuments, the coins, and the bilingual inscriptions, it certainly is most doubtful whether it was ever the language of the Lycian people. With respect to the art of Lycia, by far the finest specimen is being transported to England, the Pandarus Relief at Xanthus: of the eastern source of this work there can be no doubt. There are a few specimens of similar character, but the large mass of the sculptures in Lycia, Xanthian as well as of other cities, are Greek, and most of them of a late age. But there are at least two friezes of Greek workmanship, being now shipped for England, either of which would be worth all the expense and trouble at which this large prize of sculpture is being removed.

The Ancient Theveste.—The French have lately taken possession of the Arab Town of Tebessa, and the following particulars of the ancient city are from the despatch of General Negrier to the Minister of War. "The town of Tebessa, the ancient Theveste of the Romans, is in one of the finest parts of the province of Constantina. Here are to be found delicious water, beautiful gardens, and an immense plain irrigated by numerous springs. The ruins and traces of Roman stations scattered around the monuments of art found in Tebessa itself, and the other testimonials of grandeur and luxury still apparent, attend the value set by the Romans on this part of their conquests, and that where there is now a population of not more than 1500 Arabs, there existed in those times between 30,000 and 40,000 inhabitants. The Roman fortress of Thevesta is still standing. It consists of a rectangular tower of nearly equal sides, and surrounded by a wall measuring 1500 yards in extent, built of squared stone. At different distances in the line of the wall are 14 square towers. The height of the wall varies from 15 to 30 feet, and that of the towers from 30 to 36 feet. The thickness is between 6 and 8 feet. There are two entrances, which the Arabs call Bab el Djedid (the new gate), and Bab el Kedim (the old gate). The first gives access to the town between the two towers fronting the east, which is scarcely wider than between 10 and 12 feet. The other gate is surmounted by a triumphal arch, in the style of the best period of the Roman dominion, and which has since been formed into two towers in the north front of the inclosure. This monument remains almost entire, but is partly concealed by walls, which have filled up the intervals between the columns and the arches which support the upper part. The arch is of the Corinthian order, and all its architectural decorations are as fresh as if they were sculptured yesterday. They are in remarkably pure and delicate style. Latin inscriptions record the dates of its original construction and of its restoration, after being devastated by the Barbarians. Inside the town, near the old gate, is a small Temple still perfect, the form and architectural style of which very much resembles the Maison-Carrée at Nîmes. This building is of the Corinthian order. The portico is composed of eight columns, surmounted by an entablature with a cornice and an attic enriched with very curious allegorical designs, executed with the utmost perfection. The columns are formed of single blocks of a very fine red marble. The rest of the Temple is supported by pilasters in the same style as the portico. Towards the south-east of the town, at about 200 yards from the new gate, is a Circus of elliptical form. The raised seats are 16 in number, and are capable of accommodating 6,000 spectators. From the sides of the mountain of Bou-Roumann flows an abundant stream of water, which the Romans conveyed into the town by an aqueduct 765 yards in length. It still exists across a ravine 50 feet in depth. In some parts it has been roughly repaired by the Arabs, but it is the Roman canal which still brings to Tebessa all the water required for the inhabitants and their gardens. At about 1,300 yards from the north wall of the town are immense ruins, supposed to be those of a Temple of Justice, but it belongs to antiquaries alone to determine the destination of each of its parts."

THE LATE SOLAR ECLIPSE.

We have been indulged with the perusal of a private letter from that excellent astronomer F. Baily, Esq., giving an account of this superb phenomenon, as witnessed by himself at Pavia, over which town the line of central darkness exactly passed. The appearances were every way extraordinary, unexpected, and most singular. At the moment when the total obscuration commenced, a brilliant crown of glory encircled the moon, like the "Aureole," which Catholic painters append to their saints. Suddenly, from the border of the black and labouring moon, thus singularly enshrined, burst forth at three distinct points, within the aureole, purple or lilac flames! visible to every eye. At this moment, from the whole assembled population of the town, a simultaneous and deafening shout broke forth. A similar manifestation of popular feeling is recorded at Milan, occasioned by the selfsame astonishing spectacle, accompanied in the latter instance with a general "*Huzzah! vivent les astronomes!*" The eclipse was also viewed from the Superga, near Turin, by our Astronomer Royal, Mr. Airy, apparently under less favourable circumstances. We have yet heard of no astronomer witnessing from a great elevation in the Alps the shadow striding from peak to peak, or blotting in succession the fair fields of North Italy. Such an exhibition must have been perhaps the sublimest which the eye of man can ever witness as a mere physical phenomenon.

OUR WEEKLY GOSSIP.

A relic of a *Cartoon*, by Raffael, is now to be seen at the National Gallery. This fragment of a work but little respected either by Man or by Time, as the former cut it into pieces with his shears for the Arras looms, and the latter hewed it smaller again with his scythe through mere wantonness, has been patched up of many scraps, and all so carefully painted over, that scarce a trait of the original is now discernible. Still the composition remains, and the grand intention—a venerable ruin, betokening, by the magnitude of its materials and their gigantic ordonnance, how sublime it must have looked when fresh from the hand of its mighty constructor. He had chosen for his subject that most horrible slaughter-scene, 'The Murder of the Innocents,' yet knew how to render it attractive. Ye who "grind so much of the red," take example! Accustomed as we are to the spasmodic passions of modern tragedy, we may find the scene delineated with a subdued feeling that somewhat resembles tameness; at least the expressiveness is seen rather in the attitudes than the countenances, but these have, no doubt, lost much, if not all of their primitive character. Upon the whole, this relic is a study for the comparative anatomist in Art, who can imagine out the colossal frame from the chance details to be found among such a heap of alluvion. It once belonged to Mr. Prince Hoare, and belongs now to the Foundling Hospital, whose Committee have deposited it, not as a donative, but what we may call a permanent loan to the public, in our National Collection of Pictures.

It is always so ungracious a task to comment on contemporary periodicals, that we long since ceased to notice them: but our attention is so urgently invited to the number of the *Foreign Quarterly Review* just published, under a new Editor and a new system of management, that it would be still more ungracious to let it pass in silence. Yet if this number is to be taken as a fair specimen of the mode in which the work is henceforth to be conducted, and of the improvement to be looked for in consequence of the change which has taken place, we cannot speak favourably of it. Making every allowance for incompleteness in regard to arrangements, we do not perceive any alteration for the better in regard to plan, except in some minor points. The great defect of the *Foreign Review* has ever been, that it did not answer to its title; that so far from confining itself, as it very well might, and ought to have done, to the contemporary literature or literatures of the Continent, it was accustomed to go out of its way in search of subjects that had no relation to literature at all; and however many of them were treated, they possessed but little interest for the majority of readers: endless articles on political, commercial, and theological topics, were certainly ill calculated to recom-

to be seen of a work me, as the s for the ller again has been carefully al is now s, and the ening, by r gigantic ked among r. He horrible cents; yet no "grind ecustomed odern tra- d a sub- eness; and attitudes ight, lost r. Upon mparative e colossal and among ed to Mr. Foundling it, not as nent loan Pictures. ment on ce ceased review just system of gracious er is to be which the of the im- ce not speak ce for in- ve do not regard to great de- n, that it confining ave done, es of the its way in erature at ed, they readers: and theo-

to be seen of a work me, as the s for the ller again has been carefully al is now s, and the ening, by r gigantic ked among r. He horrible cents; yet no "grind ecustomed odern tra- d a sub- eness; and attitudes ight, lost r. Upon mparative e colossal and among ed to Mr. Foundling it, not as nent loan Pictures. ment on ce ceased review just system of gracious er is to be which the of the im- ce not speak ce for in- ve do not regard to great de- n, that it confining ave done, es of the its way in erature at ed, they readers: and theo-

ment the work to those who sought it for the promise held out by its title; more especially as there is abundance, even a perplexing superabundance, of materials suited to its purpose, were it to confine itself strictly to Foreign Literature, properly so termed. We could mention many interesting works which have of late years appeared in various parts of the Continent, but of which no notice whatever has been taken by the *Foreign Quarterly*. We, who only incidentally, and on special occasions, notice foreign publications, have frequently anticipated the *Foreign Quarterly* in notices of literary novelties; indeed, many interesting works have not been noticed therein at all until after they had been translated, and gone the round of the whole English periodical press. Yet so far from there being any change for the better, so far as the leading articles are concerned, under the new management, we are expressly told that "Discussion of English books on matters of Foreign concern will no longer be excluded from the *Foreign Quarterly*"; and subjects of Classical Scholarship, important alike to every country, will receive more careful attention;—which last is certainly no empty promise, since one of the longest articles in the present number is on the 'Writings of Catullus!' The space so occupied would, in our opinion, have been far more appropriately and interestingly filled by two or three articles on German, French, Italian, or Spanish works, even though not more fresh than Doering's edition of 'Catullus,' of 1834! Surely, too, the Editor must have been strangely in want of foreign publications, when he accepted an essay on the 'Characteristics of German Genius,' with an English book—Mrs. Austin's 'Fragments from German Prose Writers'—by way of text; and another paper—that on Chatterton—tacked to an English book, at least to a book written in English, though published in America, and which is, moreover, not upon the subject of Chatterton, but of Tasso! Such incongruities might have been passed by, as merely accidental, had nothing been said about changes of plan and adoption of a new system; but as attention has been called to these circumstances by the publishers, we offer these remarks in all friendliness, and because we are among the well-wishers for the success of a work, which, if conducted in a right spirit, and with a clear perception of its object, ought to be most acceptable to the public.

The French papers give the particulars of the inauguration, on the bridge of the little country town of Mauzé, in the department of the *Deux-Sèvres*, of a monument to the memory of the African traveller, René Caillé, a native of that district; and add, that M. Villemain's contribution, as Minister of Public Instruction, to the festival of the day, was the grant of a pension of 1,500 francs to the widow of the man who, thrust on the world a poor and friendless orphan, had earned the protection of the State for his own orphan children, and made good his title to national commemoration.

Letters from Copenhagen announce the sudden death, in that city, by apoplexy, at the age of sixty-one, of the learned Danish archaeologist, M. Broendsted, the author of many well-known works, most of them written in French, and published in Paris, where the author resided for the greatest portion of his life. M. Broendsted was a member of the French Academy of Inscriptions and Belles Lettres, and of many other learned bodies throughout Europe; and had recently been appointed Conservator in Chief of the Royal Cabinet of Coins and Medals, and Rector Magnificus of the University of Copenhagen. He had expended the largest part of a rich patrimony in travels and researches in Greece and in the East; among his labours, of which latter class figure conspicuously the clearing out of two large temples in the neighbourhood of Paulizza, the ancient Ægina. On the evening of the very day when he was fatally attacked, in one of the galleries of the Royal Library, he was to have embarked for Kiel, on his way to Paris. M. Broendsted has left a library of about 20,000 volumes; and rich collections of Greek and Roman antiquities, scattered between Paris, Rome, and Copenhagen.—We may mention appropriately in this place that M. de Sismondi's library is to go to his testamentary executor, M. de Rossi, after the death of Madame de Sismondi,—to whom that, with everything else left by the historian, is bequeathed for her life—one of his nieces, established in Tuscany,

being appointed, as to all but the library, his sole reversionary heir.—To this paragraph, we may add, from the *Bombay Times*, the announcement of the death of the Hungarian traveller, Csoma de Koros, which took place on the 11th of April last, at Darjiling, in the kingdom of Nepal, whence the traveller was on the point of proceeding to Lassa, in Thibet, for the further prosecution of his researches into the language of the country.

We mentioned, a short time since, that the Academy of Sciences at Berlin had filled up a vacancy in its Section of Physics and Chemistry, by the election of a Hebrew, Herr Joseph Elisha Riess. The Academy having, in conformity with its statutes, communicated this choice to the Minister of Public Instruction, to be laid before the King for his approbation, the Minister refused to submit the name, alleging that an Israelite could not become a resident member of the Academy; and further, that the quality in question, conferring on its possessor the right to deliver public courses of lectures in the Universities throughout the kingdom, such right could not, according to the laws in force, be exercised by a Jew. A long correspondence between the Academy and the Minister has been the consequence, in which the former body refuses to give way, declaring that its statutes prescribe to it no other rule for its elections than that of choosing the men most distinguished for science; and that the labours of such men, when chosen, are altogether foreign to biblical theology. The Minister, at length, applied to the King verbally, to know if he should formally submit the election of Herr Riess to his Majesty, to which the King replied by an unqualified approbation of the nomination of one so eminent; and the reception of the new Academician was, accordingly, fixed to take place at the public sitting of the 7th instant, held to celebrate the 146th anniversary of the Institution. We have been recently called upon to announce more than one example doing honour to the sentiments of this monarch; and these repeated instances of liberal thinking, on the part of a despotic prince, we record all the more willingly, that they are not isolated facts, testifying of mere impulse, but the evidences of a mind in harmony with the sympathies of the age. We may add, therefore, that we observe, with pleasure, that the king, in passing through Dantzick, on his way to St. Petersburg, has taken a measure affecting the nationality of the Polish provinces subject to the Prussian monarchy, which has even more than its intrinsic significance from the direction in which His Majesty was travelling at the time, and from its marked contrast with the recent Imperial Ukases directed against that more unfortunate portion of the same people which sits under the tender mercies of his august brother, the Autocrat of all the Russians. The Prussian King has ordered that the instruction in all the schools of his Polish provinces shall henceforth be given in the Polish tongue alone,—with the exception only of religious instruction, to be delivered in Polish or in German, as the parents may desire; and further, that no German, or other foreigner, shall be appointed professor in any of these schools, who shall not previously have given proof of his ability to speak and write the Polish language with fluency.

The members of a Russian family of fifty-three persons (twenty-seven men and twenty-six women) called the Kantowicz family, have been training their voices, confining each to two or three notes, on the principle of their famous national horn bands. These performers are about to sing at the Grand Opera of Berlin, a series of instrumental compositions. A grand musical festival will be given at Salzburg, on the 4th, 5th, and 6th of next month, on the occasion of the inauguration of the monument to Mozart. Upwards of two thousand artists and dilettanti have already offered their services: and it is even said, that the number of performers will finally amount to three thousand. Dr. Mendelssohn, Lachner, and the Chevalier Neukomm have been appointed joint directors of the festival; and among the singers engaged are Mesdames Schroeder-Devrient, Stöckl-Heinefetter, Spatzler-Gentiluomo, Löwe, Hasselt-Barthe, and Haorn; Herrn Hatzinger, Staudigl, Schmidt, Kramer, Lortzing, and Guetner. The first day will be devoted entirely to religious ceremonies; and the musical performances will be, in the cathedral, Mozart's mass in D major, and Requiem. On each of the other days

there will be a grand concert, whose programme will principally consist of works by Mozart.

BRITISH INSTITUTION, FALL-MALL.

The Gallery, with the WORKS of the late SIR DAVID WILKIE, R.A., and a selection of PICTURES by ANCIENT MASTERS, is OPEN DAILY, from Ten in the Morning till six in the Evening.—Admission, 1s.; Catalogue 1s. William BARNARD, Keeper.

Will close Saturday, next.

NEW SOCIETY OF PAINTERS IN WATER COLOURS.—THE EIGHTH ANNUAL EXHIBITION at their Gallery, FIFTY-THREE, FALL MALL, OPEN from 9 o'clock till Dusk. Admission, 1s.; Catalogue 6d. JAMES FAHEY, Sec.

DIORAMA, REGENT'S PARK.

THE TWO PICTURES, now exhibiting, represent THE VILLAGE OF ALAGNA, in Piedmont, destroyed by an Avalanche, painted by M. BOUTON; and THE SHRINE OF THE NATIVITY, at Bethlehem, painted by M. KREUX, from a sketch made on the spot by D. ROBERTS, R.A. in 1839. Both Pictures exhibit various effects of light and shade. Open from Ten till Five.

ROYAL POLYTECHNIC INSTITUTION.

Mr. FOX TALBOT'S CALOTYPE PROCESS (exhibiting the spontaneous production of a Picture) is explained at Two o'clock DAILY, by Dr. Ryan, who, with Professor Bachhoffner, and other Lecturers, is constantly introducing to the Visitors every new subject in Practical Science. By permission of Mr. Moon, the Publisher, the beautiful PICTURES taken by DASHIEL ROBERTS, R.A., in the HOLY LAND form a principal feature in the NEW and ENLARGED DISSOLVING VIEWS. THE COLOSSAL ELECTRICAL MACHINE, DIVING-BELL, and DIVER, &c. Conductor of the Band, Mr. Wallis.—Admission, 1s. Schools half-price.

THE CHINESE COLLECTION, St. George's-place, Hyde Park-corner, this splendid Collection, consisting of objects exclusively Chinese, surpassing in extent and grandeur any similar display in the known world, entirely filling the spacious saloon, 225 feet in length, by 50 feet in width, embracing upwards of fifty figures as large as life, all fac-similes, in groups in their native costumes, from the highest mandarin to the blind mendicant in his patched garment; also many thousand specimens, both in natural history and miscellaneous curiosities, illustrating the appearance, manners, and customs of more than three hundred million Chinese, respecting whom the nations of Europe have had scarcely any opportunity of judging, is NOW OPEN for PUBLIC INSPECTION, from Ten in the Morning till Ten at Night. Admission, 2s. 6d.; Children 1s.

MEETINGS FOR THE ENSUING WEEK.

MON. Institute of British Architects, 8, P.M.—'On the nature of Architecture and Painting as regards Invention,' by Joseph Severn, Esq.—'A Description of the mode of constructing the Enamelled Floors, called Venetian Pavements, used in Venice and Naples,' by Signor Cappitato, Architect of Venice.—'Observations on the Relative Magnitudes of some Ancient and Modern Cities,' by Joseph Bonomi, Esq.

TUES. Zoological Society, 4 p.m.—Scientific Business.

FINE ARTS

NEW PUBLICATIONS.

RESUMING our notice of recent publications, we begin with Parts II. III. and IV. of Roberts's *Holy Land*. If we grow fastidious with respect to lithographic prints, it is the fault of specimens like these: for who can deny that such a vignette as the 'Tomb of Zechariah,' in Part II., combines some of the best qualities of a drawing and of an engraving—the freedom of the former, with the certainty of the latter? How admirable again, is the perspective of the wide view of Jerusalem from the south! how entire the relief of the city in the middle distance from the horizon, which melts into the tranquil air. The 'Pool of Bethesda' is another large subject admirably treated: the 'Tower of David' a most attractive vignette. We like the Shrine of the Holy Sepulchre the least; but the richness of such an interior, with all its depth of shadow, delicacy of detail, and variety of half tints, is as yet, perhaps, beyond the lithographer's power, be he even so redoubtable a professor of the art as Mr. Haghe himself. Yet the 'Crypt of the Holy Sepulchre, Jerusalem,' (Part III.) goes far to persuade us to draw our pen through the above limitation; the subject being more simple, and less difficult to work up to the point of perfection. Part IV., again, contains two of the most beautiful subjects hitherto issued, the 'Tomb in the valley of Hinnom,' and the view of Jerusalem from the north, where the bursting forth of the sun, a little above the horizon, gives an effect of light and shadow which is rendered with great felicity. It is satisfactory to observe that the work is so far maintained at the high point of excellence at which it was started.

Some new Parts of Brockedon's *Italy* prove the inexhaustible beauty of a land, whose treasures draughtsmen, as well as poets and romancers, have been rifling since the days of Chaucer downwards. To be sure, we have seen more picturesque views of Amalfi than that from Mr. Leitch's drawing, since, while it gives the buildings with fidelity, it withholds some of the more picturesque accidents of their situation; but the artist is entitled to set off to his credit, the view of Civita Vecchia, which is a fine subject well treated. We know not by whom the 'Cascata del Marmore, Terni,' has been displayed to

greater advantage than by Mr. Brockedon:—'Terracina,' too, figures well, as might have been expected, in Mr. Stanfield's hands. If we are not contented with the prospect of the 'Rialto' here offered,—being spoilt by Canaletti, or that more vivid painter Memory, who has registered every column and arcade, foreground *tragnetto*, and distant reach of palaces, with a lover's jealous precision!—the less familiar Certaldo, Boccaccio's birthplace, has a beauty which we are willing to accept in compensation. If the generality of the subjects are well chosen, the generality of the plates, also, are well executed. We are not in love, as all the world knows, with the modern style of landscape engraving, but Mr. Brockedon's work contains specimens of more than the average effect and finish.

A young artist, Mr. Douglas Morison, puts forth a splendid publication in illustration of *Haddon Hall*. His taste in effect, is undoubtedly good: his hand, in execution, agreeably free: and the towers and the terraces of the beautiful old mansion of the Vernons, suffer no wrong in his interesting work. He is happiest in his architectural views without the mansion,—in his interiors, both as regards selection and treatment, he is excelled by Mr. Nash: while the one or two wider landscape subjects on which he ventures, are chargeable with a coarseness, which brings them down to the lower standard of lithographic art. But the work, on the whole, is worthy of a place among the magnificent folios recently devoted to ancient English houses. Mr. Radcliffe's views of *Blenheim House* are splendid in scale; but we have acknowledged ourselves as fastidious in the matter of lithography. Those, however, who can content themselves with freely-sketched outlines of the glories of the Duke of Marlborough's palace, and who are not "over exquisite" in demanding pictorial effect, or technical cleverness, need not, perhaps, lay our censure too severely to heart. Mr. Nichol's *Towns and Cities of Scotland* comes next: the number before us is devoted to Saint Mungo's capital, which is made, in representation, more smoky than the reality, by the coarseness of the artist's chalk tints. Like its predecessor, this publication must prepare itself for a local, rather than a general, popularity. Ere we leave the lithographs for the present, we may announce Mr. Allom's *View of the Interior of Drury Lane Theatre, on the occasion of drawing the Art-Union Prizes*, and Mr. Tarring's interior and ground plan of the *Kitchen of the Reform Club*,—that romance of culinary architecture which the members of the Whig Paradise owe to the luxuriant imagination and profound experience (as a *feuilletonist* might say) of their arch-cook M. Soyier. What an illustration to Lady Morgan's piquant essay on the decline of female influence, caused by club-house cookery!

We spoke some time since of the re-issue of Coppel's Illustrations to *Don Quixote*. The third Part before us, is less interesting in its subjects than others. The Knight and the Squire have little prominence in the festivities of Camacho's wedding: and the Don's prowess in vanquishing Samson Carasco, or defending Basilius, offers less scope to the painter than his more audacious onset against the windmills, or his more languishing courtesies interchanged with the Duchess. Still there is a purpose and a reality in these old illustrations worthy of all honour.

It is a good sign for Art that there is a demand for one cheap edition after another of *Raffaell's Cartoons*. The last version is one cut by the Messrs. Whimper after drawings by Jarvis: the scale is sufficiently bold, and the manner of execution free enough, but several of the heads are carelessly caricatured, as in the 'Beautiful Gate' and (yet more) 'Paul and Barnabas at Lystra.'

We have but two works more to speak of on the present occasion: No. 1. of the *Drawing Book of the Government School of Design*, a set of elementary geometrical exercises, which seem arranged on judicious principles, are prefaced by a sensible introduction, and accompanied by explanations calculated to assist both master and pupil. The last publication is an ephemeral one, being *Views of the Defiles and Mountain Passes of Afghanistan*, got up for the occasion, and hardly sufficient to allay the curiosity touching that wild (and now historical) district.

MISCELLANEA

Paris Academy of Sciences.—July 4.—A paper was read 'On the Geological state of the Southern part of Brazil, and on the Heavings-up of the Earth, which have at various periods changed the appearance of the country,' by M. Pissis. The ground examined is situated between the 12th and 27th degrees of central latitude, and comprehends the space between Parana, San Francisco, and the sea. Three periods of rising or heaving-up are perceptible in Brazil, the last belonging to the end of the tertiary period. The immersion of certain strata placed at the bottom of the province of Bahia, and a slight elevation of the table lands, found between the sea and San Francisco, have been the results of it.—Another communication was from M. Dutrochet, 'On the action exercised on the surface of various Liquids, by the influence of the Vapour of certain Substances, and by their immediate contact.' Light bodies placed on the surface of the water are repelled to a certain distance by the vapour of camphor, of ether, or even of alcohol, and the essential oils. M. Dutrochet's experiments oppose the opinion hitherto received, that this phenomenon is due to the impulsion which results from the rapid expansion of the vapour, which, striking on those light bodies, produces the removal of all the liquids subjected to the experiments. Either is the one which produces the most vigorous movement of light bodies placed on water, mercury, and several acids and alkalis, but the movement is not always a repulsion, and is subject to great variation. Thus the vapour of ether attracts flour of sulphur placed on the surface of sulphuric acid, and produces a repulsion on the surface of nitric acid. If water be added to these acids, the movement is weakened in proportion as the quantity of water is increased. M. Dutrochet attributes these different movements to a modification of capillary attraction. He observes that, in reality, there is neither attraction nor repulsion in the floating bodies, that their displacement impedes the current, of which the surface of the liquid is the seat, and which has its origin in the heaving up or depression below the liquid, which may be reduced to steam.

Norwich, July 19, 1842.

British Association.—I have just spent an hour at the Norwich Museum, which I visited for the purpose of personally examining the fossil skeleton referred to by Prof. Owen at Manchester, in his Report upon British Fossil Mammalia, as a genus of Mammalia, closely allied to the Anoplotherium, and which had lately been discovered at the village of Bacton, on the coast of Norfolk. I expressed to the Geological Section, after the reading of Prof. Owen's paper, my doubts as to the existence at Bacton, or in its neighbourhood, of any tertiary strata to which an Anoplotherium would be likely to belong; and my examination this morning of the fossil in question, satisfactorily establishes the correctness of those doubts, for I find the jaws of the supposed anoplotherium to be those of a common ruminant (probably stag or goat), the discovery of which is a matter of every day occurrence in the peat bogs and modern deposits of this part of England. I remain, &c.

EDWARD CHARLESWORTH.

Shells.—A large collection, consisting of above 13,000 specimens, has lately been sold by the Messrs. Stevens. Among the rare lots were the following, to which we have attached the prices. *Conus Malacanus*, fine, 1l. 15s.; *Cardium elatum*, fine, 1l. 5s.; a fine specimen of the *Magilis antiquis*, 1l. 14s.; *Conus aurisiacus*, with a young specimen, 1l. 16s.; a species of *Ungulina*, from Senegal, 1l. 4s.; a fine and scarce *Helix*, 1l. 10s.; a richly coloured specimen of the *Conus nobilis*, 1l. 8s.; *Margarella Goodallii*, in two different stages of growth, 3l. 15s.; a fine specimen of the *Voluta fulgetrum*, 8l. 15s.; a unique *Cyprea* in a young state from New Holland, 3l. 17s. 6d.; two fine specimens of the *Cyprea Reevii*, 6l. 6s.; *Conus Centurio*, 2l. 2s.; *Conus Genuanus*, rich in colour, 4l.; a fine specimen of the *Voluta Junonia*, 12l. 15s.; of the *Conus Cedo Nulli*, 4l. 10s.; *Pyrula Corona*, 2l. 8s.

Ductility of Glass.—The Conservator of the Museum of Avignon has remarked, that all the glass vases found buried at Vaison, were so soft and ductile, when first discovered, that they might be kneaded up and cut with a knife-blade, but that they assumed the fragility and hardness of common glass, after a few hours exposure to the air. This remark applied only to the vases buried at a depth of at least three metres.

TO CORRESPONDENTS.—C. A. M.—H. R.—S.—A Barrister
—J. D.—H. C.—D. Bath—received.—A letter left for A. C.

TWELFTH MEETING OF THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

[From our own Correspondents.]

SECTION A.—MATHEMATICAL AND PHYSICAL SCIENCE.

MONDAY, JUNE 27.

Prof. BRASCHMAN, of Moscow, explained the substance of a memoir which he has prepared under the title of 'General Considerations on the Analytical theory of Equilibrium and Movement.' But analytical investigations, being free from surpluses, admit so little of abridgment, and they are besides so ill suited to the general reader, that we have thought it advisable to omit the Professor's formulae. For the demonstration of his principles, and for their application to curvilinear movements, the Professor referred to his Memoir (not yet published,) which will also contain some extracts from a Memoir of M. Ostrogradsky, 'On the movement of systems of points subject to variable conditions.'

'On a new general principle of Analytic Mechanics,' by Prof. Jacobi, of Königsburg.—In the different problems relative to the motion of a system of material points which have been hitherto considered, one may make, said the Prof., an important and curious remark, "that whenever the forces are functions of the co-ordinates of the moving points only, and the problem is reduced to the integration of a differential equation of the first order of two variables, it may also be reduced to quadratures." The author has succeeded in proving the general truth of this remark, which appears to constitute a new principle of mechanics. This principle, as well as the other general principles of mechanics, makes known an integral, but with this difference, that whilst the latter give the first integrals of the dynamical differential equations, the new principle gives the last. It possesses a generality very superior to that of other known principles, inasmuch as the analytical expressions of the forces, as well as the equations by which we express the nature of the system, are composed of the co-ordinates of the movables in any manner whatever. The Professor proceeded to show the application of his principle, and its advantages in the following problems, viz. the orbit described by a planet in its motion round the sun; the motion of a point attracted to two centres of force; after Newton's law of gravitation; and the problem of the rotatory movement of solid bodies round a fixed point. He then enunciated the rule itself, by which the last integration to be effected in the problems of mechanics is found to be reduced to quadratures, the forces being always functions of the co-ordinates alone; and observed, that when we have any system whatsoever of material points, the simplicity of the preceding theorem is in no respect altered, provided we give to the dynamical differential equations, that remarkable form under which they have been presented for the first time by the illustrious Astronomer Royal of Dublin, and under which they ought to be presented hereafter in all the general researches of analytical mechanics. It is true that the formulas of Sir W. Hamilton are referable only to the cases where the components of the forces are the partial differences of the same function of the co-ordinates; but it has not been found to be difficult to make the changes which are necessary, in order that these formulas may become applicable to the general case where the forces are any functions whatsoever of the co-ordinates. When the time enters explicitly into the analytical expressions for the forces, and into the equations of condition of the system, the principle of the final multiplier found by a general rule, is applicable also to this class of dynamical problems. There are also some particular problems into which enters the resistance of a medium, which give rise to similar theorems. It is the case of a planet revolving round the sun in a medium whose resistance is proportional to any power of the velocity of the planet. "The analysis," observed M. Jacobi, "which has conducted me to the new general principle of analytical mechanics, which I have the honour to communicate to the Association, may be applied to a great number of questions in the integral calculus. I have collected these different applications in a very extensive memoir, which I hope to publish on my return to Königsburg, and which I shall have the honour of presenting to the Association as soon as it shall be printed."

Sir W. HAMILTON inquired whether Prof. Jacobi's

principle would apply to any number of detached points, for instance in Encke's comet.—M. JACOBI replied in the affirmative.

THE PRESIDENT, the Dean of Ely, then resigned the chair to Prof. Lloyd, one of the Vice Presidents, and communicated the Report of the Commissioners for the restoration of lost standards of weights and measures, and upon their proposal for the introduction of a Decimal system.

After stating that the imperial standards of weights and measures (the yard, the pound, the gallon, and several of their multiples) had been lost in the fire which destroyed the two houses of parliament, he said that a commission (of which he was a member) had been appointed to report on the best means of restoring these standards. The commission recommended to the government, that the standards of length and weight should be independent of each other, which was not the case before. The standard pound weight was Troy weight (5,780 grains), though the pound avoirdupois (7,000 grains) was used throughout the country, in the proportion, perhaps, of 10,000 to one of Troy. The commission recommended that, hereafter, the use of the Troy pound should be abolished, except for a very limited number of transactions, and that the avoirdupois pound should be considered as the standard pound of Great Britain. They recommended that measures of capacity should be determined by measures of weight, by far the most convenient method, inasmuch as weighing was a much more accurate operation than, for instance, the formation of a perfect cube. The commission also ventured to recommend strongly some alterations in the coinage, and the systems of weights and measures, arising out of a more extensive introduction of the decimal scale. The nearly unanimous determination of the commission was, that any attempt to interfere materially with the primary units of the coinage, weights, and measures, in ordinary use, would produce much confusion and bad consequences in the ordinary transactions of life. They would, therefore, adhere strictly to all those primary units, viz. the pound sterling, the yard, (and also the foot, for there were two primary units in this measure), the acre, the gallon, and the imperial pound. The coinage must necessarily be the basis of any changes leading to the more extended adoption of a decimal scale. Taking the pound sterling as the primary unit, they proposed to introduce a coin of the value of 2s. (one-tenth of the pound); another, either silver or copper, of one-tenth of 2s. (or 2d. and a fraction) which might be called a *cent* (the hundredth of a pound) and the thousandth part of the pound sterling, or nearly the value of our farthing (of which there are 960 in the pound) which new coin it was proposed to call a *millet* (or thousandth). The difference in the value of the copper coinage was less important, as it was merely a representative coinage, and had not an approximating intrinsic value like the gold and silver coinage. For the proposed coin of 2s., various names had been suggested, as *Victorine*, *rupee*, or *florin*; it being not much different from the value of some of the rupees of the East Indies, or the florin of the Continent. Under this new decimal scale, the shilling would be retained, and also the sixpence (but the latter under another name, more representative of its value). For the half-crown, would be substituted the 2s., or *Victorine*. The very rev. gentleman dwelt at some length on the advantages of this change, in the extensive money transactions and accounts of bankers and merchants; in the Bank of England, for instance, where a thousand clerks were employed, it would greatly facilitate the operations of calculations and book-keeping. Thus, discarding *millets* (for bankers now excluded the subdivisions of a penny in their accounts), the sum of 17l. 3 *Victorines*, 7 *cents*, would be represented at once by 17.37; only two places of decimals, instead of as now in pounds, shillings, and pence. He showed how the principle was applicable, with still greater advantage, in cases of weights and measures (where the scale was now most anomalous and absurd). Suppose the rental or value of 30.64 acres of land to be required, and that the land cost 69l. 3 *Victorines*, 4 *cents* an acre. The reduction in common arithmetic was one of very considerable labour, difficulty, and time. But, by this plan, the result might be obtained in five lines of decimals, containing only

twenty-one figures. As to weights, the most extensive change recommended by the committee would be to introduce the uniform weight of 10 lb. to the stone, instead of the varieties of 8 lb. in some, and 14 lb. or 16 lb. in other parts of the kingdom; the hundred weight to be called *centner* (a German term). These were all the changes proposed in weights; the commission not wishing to interfere with the subdivision of the pound, which admitted of four subdivisions into 8 oz., 4 oz., 2 oz., and 1 oz. The pound and ounce would remain, therefore, exactly the same as at present. As to the measure of length, the commission thought it too violent a change to alter all the mile-stones; but there would be no difficulty (with reference to the standing orders of parliament, in railway matters, &c.) in introducing the measure of 1,000 yards, which might be called a *myriad*. However, the commission made no recommendations as to nomenclature, leaving that to the legislature. Thus, the changes proposed to be introduced, not only to ensure a decimal coinage, but a decimal subdivision of weights and measures, were by no means of that formidable and appalling character which many persons suppose they must of necessity possess.

Prof. STEVELLY said, there was one point from which he ventured to differ, although he agreed that it was not a sufficient reason for disturbing the capacity of the gallons previously in use, so much as had been done by the act of George IV., that the imperial gallon should be of the capacity exactly of 10 lb. avoirdupois of distilled water; yet he could not but think there was a very strong reason why the act should not have deranged a rule which was almost exact before, namely, that one cubic foot of distilled water weighed almost exactly 1000 ounces, the consequence of the changes of the act being to reduce that weight to about 997 ounces. It was well known that this rule was a convenient one for architects, engineers, and founders; for by means of it, if they knew the specific gravity of their materials, they could arrive at once by a simple process of numeration, at the weight of any structure, roof, or casting. Now this he considered of such practical importance, that he conceived the commissioners would have been justified in advising that the pound avoirdupois should be declared to be that which was as 1 : 62.5 to the weight of a cubic foot of distilled water. This would have made the rule exact.—The DEAN of ELY said, it would have deranged the pound in use too much.

Mr. W. SNOW HARRIS then made a Report on the Meteorological Observations made at Plymouth last year. He stated that, at the close of 1842, he should be able to revise (and bring to the next meeting of the Association) the results of the series of meteorological observations continued hourly, night and day, without material interruption, during ten years. He now submitted only a general discussion of five years' observation of the barometer during the years 1837 to 1841, both inclusive, and some observations and experiments on the wind, made with Prof. Whewell's anemometer. The observations were made at a height of 75 feet above the level of the sea, and were reduced to 32° Fahrenheit. He exhibited a chart, showing the lines resulting from the means in each of these years, and also the mean of the whole five years, and noticed the surprising coincidence in the general character of all these lines, and the very few and small deviations they presented,—a remarkable result, considering the frequent atmospheric disturbances to which these latitudes are liable. The mean pressure of the six years corresponded with that already obtained. The line of mean pressure occurred between the hours of 1 and 2, and between 7 and 8 A.M., and again between 12 and 1, and between 6 and 7 P.M. The hourly maximum pressure was at ten o'clock morning and night, being, with only one exception, the uniform result for six years. The hourly minimum pressure occurred at 4 A.M. and P.M., being the uniform result for six years, without any exception. The line of mean pressure was crossed four times in the twenty-four hours; and thus was realized, in the midst of atmospheric disturbances of very considerable amount, that effect, termed "horary oscillation," which was first observed by Baron Humboldt, in tropical climates. Mr. Airy, to whom these observations were submitted, seemed to think, that but little more could be effected by a further continuance of

them, after the close of this year. There had been 48,000 hourly observations on the atmospheric pressure, and 87,000 hourly observations on the temperature; and he trusted these would not be preserved merely in the fragile form of MS., but placed at the disposal of the scientific world. After explaining the construction of Whewell's anemometer, he said, that when the pencil tracing the integral effect of the wind moved at the rate of one-tenth of an inch per hour, the current of air at the same time moved at a mean rate of eleven feet per second. He (Mr. Harris) had, by means of this instrument, endeavoured to arrive at something like an approximation to the velocity and direction of what he believed would amount to a trade wind. He had a table of results which gave the mean velocity of the wind (in feet per second) for each month of the year, viz:—

Feet per second.	Feet per second.
April 13	October 15.29
May 12.6	November ... 14.96
June 10.9	December ... 12.54
July 9	January 12.76
August 12.97	February 13.97
September .. 15.42	March 14.63

So that the mean velocity of the wind during one year (leaving the direction out of the account), was about nine miles per hour. If the mean velocities arrived at in this table were diminished and made proportionate to the whole length of the wind, we should then have something like a general idea of the velocity of the aerial current, as deduced from observation and inquiry. Then, according to Mr. Whewell's method of taking the observations (which he was persuaded was the only true method), in the latitude of Plymouth, they had something like a trade wind, setting in from southerly to northerly points of the compass at a mean velocity of four and a half to six miles in the hour. This was something like a definite result in meteorology; for no person before had ever attempted to discover the direction and velocity of the wind in its rate per hour, setting in a given direction. In these statements he had been dealing only with mean results.

Mr. HOWARD hoped that Mr. Harris would not think of discontinuing these observations until at least the cycle of eighteen years had been completed.

—Dr. SCORESBY would wish that observations with the anemometer should be tried on the sea, in order to get rid of the friction and other causes of retardation which affected the current of air over the land.

—Col. SYKES believed that the hours of maximum and minimum mean pressure observed by Mr. Harris at Plymouth, would be found nearly, if not exactly, the same as those observed in India at an elevation of 2,000 feet above the sea, and those observed in Mexico by Humboldt, 10,000 feet above that level.

—Col. SABINE said, he had that morning received a very important letter from Prof. Wheatstone, which had been laid before the Committee of the Section, and which they wished should be communicated to the Section previous to being transmitted to the Committee of Recommendations. It contained a proposal to make, for the Observatory at Kew, an apparatus which should record the operations of all meteorological instruments, so as to effect a great saving of cost. One of the instruments was for measuring the force and direction of the wind, and was capable of being sent up in captive balloons, so that the currents, to a height of 8,000 or 10,000 feet, might be carefully examined. It was stated in the letter that, all attempts to make self-recording thermometers, barometers, &c. by mechanical means have hitherto failed, because the mechanical force exerted by the rise of the mercury in the tubes is insufficient to overcome the friction of the attached mechanism, and only very inaccurate indications can be obtained. The principle, however, observes Mr. Wheatstone, which I employ in my meteorological telegraph, viz. the determination (by means of a feeble electric current) of any required mechanical force by the mere contact of the mercury in the tube with a fine platina wire, enables all these difficulties to be overcome. * * I propose, therefore, that such an instrument, the cost of which I estimate will not exceed 50l., shall be constructed, under my direction, for the Richmond Observatory. If, after a few months' trial at the Observatory, it shall be found to succeed, as I confidently expect it will, a great impediment to the advancement of meteorological science will be removed. Persons in almost every locality

may be found who would not object to devote a few minutes per day to prepare such an instrument for use, but who would find it impossible to give the requisite attention to make hourly or half-hourly observations themselves.—Col. SABINE said, Mr. Bache, of Philadelphia, has requested me to explain the reasons which have prevented him from completing the Report on the Meteorology of the United States, which has been first called for, and which, at the meeting of the British Association at Newcastle, Mr. Bache, being then present, was requested to prepare. But the task of providing funds by private subscription in the United States for the support of the system of magnetical and meteorological observations recommended by the Association (which is elsewhere provided for as a national work) has been undertaken by Mr. Bache, in addition to that of superintending its establishment and progress. Being thus occupied, Mr. Bache has found himself unable to devote the necessary time and thought to the Report.

Mr. NASMYTH prefaced his paper 'On the Application of the Law of Definite Proportions to the Stratification of Clouds,' with the remark, that he was first led to speculate on this subject, by observing the arrangement of clouds in fine weather, when, towards the horizon particularly, they may be seen extended in parallel bands or stripes. He conceived that the excess of vapour floating in the atmosphere beyond what the air could combine with, formed clouds; and that the air, in each electrical state, was capable of sustaining a definite proportion of vapour, and consequently, that the clouds of one class or description, floated (in what might be called a plane of equal electricity) at a uniform distance from the earth.

Mr. HOPKINS began a communication 'On the Meteorology of the Northern Atlantic and the South-west Monsoon of India,' but before he had proceeded far, the hour arrived when the General Committee was to assemble, and the section room being the place of their meeting, the President adjourned the Meeting.

TUESDAY.

Prof. BESSEL, of Königsberg, made a communication 'On the Astronomical Clock.' Having ever been of opinion, that that indispensable instrument to the astronomer, the transit clock, could only acquire perfection if the pendulum—separated from the works—were made to vibrate in equal time, whatever the temperature and the arc might be, he would submit, whether the expeditious method of coincidences might not be employed for checking the pendulum in both respects. The pendulum, apart from the clock, being suspended from the wall, a clock, taken out of its case, might be placed before it at a distance of six or eight feet; an object glass of three or four feet focal length, might be placed between both, so as to produce, exactly at the lower end of the pendulum of the clock, an image of the lower end of the other pendulum. Then the coincidences of both might be accurately observed by a telescope placed at a convenient distance. Similar contrivances had been described in an account of some pendulum experiments made at Königsberg; and the accuracy of the method was such, that the relative rate of both pendulums might be ascertained with sufficient accuracy in a very short time—in from ten to twenty minutes. The rate of the pendulum was to be tried at different temperatures, being placed in a box, having an opening at the lower end, covered with glass, and so fastened to the wall, that the pendulum could swing within it. In the construction of the pendulum, attention should be paid to one thing, which seemed to have been much overlooked. It often happened that thermometers affixed to the top and bottom of a clock case did not agree, whence it was evident that the compensation, acting only below, would not compensate for the variation of the whole rod. He should prefer, on this account, the gridiron to the mercurial pendulum, especially if the rods began as low as possible below the point of suspension, and were carried on to the centre of gravity of the lens. He should prefer the several rods to be of equal diameter, and to be coated uniformly. Supposing the spring perfectly regulated, as well with respect to heat as the arc, only one cause would interfere with regular vibration-times. This was the effect of that part of the elasticity of the air which depends on the variation of the height of the barometer; the other part, depending upon the variations of the thermome-

ter, is comprised in the adjustment for the compensation for heat. There was a possibility of compensating the former, by fastening a barometer tube to the pendulum, and it would not be difficult to find the suitable diameter of the tube; but he was aware that this complication of the pendulum would be rather inconvenient. At all events, the variations of the barometer were not very great, especially if the specific gravity of the pendulum be made as great as possible. He submitted these hints to those celebrated artists, whose works had greatly contributed to the promotion of astronomical purposes, and the determination of the longitude.

Sir THOMAS BRISBANE said, that Dr. Robinson, of Armagh, had ascertained that a variation of the height of the barometer, amounting to one inch, produced a difference of 0.27 per diem of rate in the clock. He observed, that the place at which the crutch impelled the pendulum, was a matter of more consequence than was usually supposed.—Mr. DENT denied that comparisons could be safely instituted between pendulums, and those connected with the mechanism of a clock.—In reply to a remark made by Mr. Clare, Prof. STEVELLY said, that cycloidal motion was laid aside on account of the shifting of the position of the centre of oscillation resulting from it. But, he thought, the discussion of compensations was too wide a departure from the important subject brought before the Section by Prof. Bessel.—Sir JOHN HERSCHEL acknowledged the justice of this remark. The question before the Section was, whether the methods proposed really compensated for the unequal arcs of vibration of the pendulum, or not. Fortunately, the method of coincidences reduced the labour of subjecting this to the test of actual trial—that which, a few years since, would have required days, or even months, to determine, could, by this method, be now ascertained in little more than twenty minutes.

Mr. FOLLET OSLER 'On the Application of the Principle of the Vernier to the Subdividing of Time.'—Prof. STEVELLY said, Mr. Osler's idea was, to have a pendulum, which should make, say ten swings, in the time that the principal pendulum made eleven, furnished with a small dial, and so placed as that the coincidences, or want of coincidence, could be observed. The strokes of such a pendulum being counted, the time of every observed stroke of it, reckoned back from its coincidence with the principal, or seconds pendulum, would, it is obvious, be found in tenths of a second.

Sir DAVID BREWSTER then made a communication 'On a new Property of the Rays of the Spectrum, with Observations on the Explanation of it given by the Astronomer Royal, on the principles of the Undulatory Theory.' If we cover half the pupil of the eye with a thin plate of any transparent body, and thus view a prismatic spectrum, so that the rays which pass by the plate interfere with those which pass through it, the spectrum is seen crossed with beautiful black and nearly equidistant bands, whose breadth, generally speaking, increased with the thinness of the plate. If the edge dividing the ray were directed to the red end of the spectrum, then fringes were seen; but no such fringes appeared when it was turned to the violet end of the spectrum. One peculiarity of these fringes, not before noticed, was that they had not the forms of bands, but rather the appearance of screws, or dotted black lines, or as if they were formed by the shadow of a plate of metal perforated by small openings. This, which appeared to be a new property of light, and to indicate a polarity in the simple rays of light, when separated from each other by refraction, he had commented on at the meetings of the Association at Liverpool and Bristol; and Mr. Airy, the Astronomer Royal, had given a paper and two publications on the subject, in which he endeavoured to account for this upon the undulatory theory, arguing that the appearance and magnitude of the fringe depended upon the diameter of the pupil, or of the object-glass. Sir D. Brewster said, he had repeated all his experiments under every variety of form, varying the diameter of the pupil from its greatest expansion to its greatest contraction, and the diameter of the object-glass from four inches to a quarter of an inch, and the fringe remained utterly unaffected by these variations. He further found, that these fringes varied in magnitude with the distance of the eye from the

refracting body, and not with the magnitude of the pupil. He stated several other results, all of which, he thought, could not be explained on the principles of the undulatory theory.

Sir W. HAMILTON observed, that the warmest advocate of the wave theory of light must be gratified with these valuable experiments of Sir David Brewster; even though they should require the wave theory, in its present form, to be abandoned; and yet it was probable they might suggest the very modifications which will adapt it to the enlargement of our knowledge.—Sir JOHN HERSCHEL said, it appeared to him, that the wave theory was now placed in the same position in which gravitation was frequently placed, in its infancy, when difficulties arose which could not be surmounted in the then state of mathematical knowledge. As soon as that knowledge was acquired, the theory was triumphant, or rather it was rendered more powerful by the very obstacles which it had been found capable of surmounting. The undulatory theory had already achieved so much, and even gone so far in predicting phenomena quite unlooked for, as in the extraordinary phenomena of conical refraction discovered by Prof. Lloyd and Sir W. Hamilton, and in Fresnel's experiments, by which circular polarization was produced artificially, that he must protest against putting it on trial for life or death the moment a new fact was discovered which seemed inconsistent with it. The facts just brought forward by Sir D. Brewster were most extraordinary, and deserved the deepest consideration: but it was necessary to suspend our judgment until further inquiry, and perhaps new facts, threw more light on this very difficult subject. The screw-like appearance and dotted lines described by Sir D. Brewster, appeared to be one of the most extraordinary facts connected with the spectrum. But the spectrum might be said to be a world within itself, of which we know as nothing, compared with what remained to be known.—Sir D. BREWSTER did not wish to put the undulatory theory on its trial for life or death, but upon one count of the indictment; for he conceived it entirely failed in explaining those facts which he had brought before the Section.—Prof. McCULLAGH said, we, as yet, knew so little of the undulatory theory, that it would be premature to pronounce, that it either could or could not explain every fact. It had long been his settled conviction, that it would be a foundation of physical principles. The only physical principle, in fact, which we had connected with it was that of interference, for he put no faith in Fresnel's mechanical theory of refraction, which seemed to be discovered by some kind of mathematical deduction, and then explained by principles invented to suit it. These were facts which he had long thought contradicted the fundamental principles of M. Cauchy as expressed in his fundamental equation. The well known fact of circular polarization, he conceived, contradicted it.—Prof. LLOYD agreed with Prof. McCullagh on the importance of establishing a sufficiency of physical principles, but he could not admit that the wave theory was so destitute of them as Prof. McCullagh represented it. Surely there was the principle of transversal undulations discovered by Dr. Young.—Prof. McCullagh thought that was rather a mathematical, than a physical theory, but, as he did not wish to differ about words, he would admit it.—Prof. LLOYD said, it could be distinctly conceived as a physical principle. But if the theory was so destitute of physical principles, surely it was most wonderful that it was found to explain completely so many and such apparently unconnected facts, and this, he conceived, at least proved its parallelism with truth.—Sir W. HAMILTON hoped it would not be supposed that the wave men were warring, or that the undulatory theory was at all undulatory in their minds. The true practical question was, whether the dynamical explanations of M. Cauchy had a physical foundation, and, on that subject he knew no better authority than Prof. McCullagh. He was not so sanguine as to hope that, at a single bound, they should reach the physical conceptions connected with so subtle an element as light. He hoped Prof. McCullagh would publish his refutation of M. Cauchy's theory, particularly as it related to circular polarization.—THE PRESIDENT said, that however difficult and abstruse the subject was which had been under discussion, the Section had had the opportunity

of hearing the opinions of all the chief promoters of the science of optics in modern days. We were, perhaps, too impatient with reference to what this theory would or would not explain. We should recollect that it was a century and a half after Newton's publication of the theory of universal gravitation, before all the problems related to that theory, as, for instance, the problem of three bodies, could be brought entirely under its dominion. It was not more than fifty years since the undulatory theory was brought forward as anything more than a guess, and scarcely twenty since its principles were mathematically followed out to any considerable extent.

Sir JOHN HERSCHEL then read a 'Report on the great co-operative system of Magnetic and Meteorological Observation,' which, three or four years ago, was commenced at the instance of the British Association. After noticing the vast increase of the surveys and observations, owing to the number of foreign establishments entering into the concerted plan, the Report referred to the Antarctic expedition, taking it up where the Report of last year left it, at Hobart Town, in 1840. Capt. Ross observed the November term (for observations) in 1840, at the Auckland Islands. On leaving those islands, his adopted course led him between the two southern magnetic foci. It seems probable that he was still to the eastward of the present locality of the greatest intensity. The full import of the observations made in this voyage is not yet known, but it is understood that intensities have been observed by Capt. Ross 24 times greater than the minimum observed by him near St. Helena, on the outward voyage; and that the general aspect of the intensity observations would appear to place the centre of the principal isodynamic oval in a latitude somewhat exceeding 50° south. The nearest approach to the magnetic pole was in lat. 76° 12', long. 164° east, the dip being 88° 40'. The intensity was here found to be less than in 47° south. The Admiralty (who had rendered every service to these inquiries) had placed under the care of Col. Sabine the observations made on board each ship, the results of which were most satisfactory, as regarded the practicability of making accurate observations at sea; for out of 647 observations of this kind made between London and the Cape, on board the *Erebus*, one only had been declared doubtful; while the observations taken by both ships exhibited a steady accordance, that could not be accidental, and might well be called beautiful. From these it would appear, if earlier observations are to be relied on, that the line of least intensity, in successive meridians, is travelling rapidly northward. The term of November, 1840, had been kept (by Capt. Ross) at the Auckland Islands, those of May and June, 1841, at Van Diemen's Land, that of July, at Sydney; the four succeeding terms had been kept in New Zealand. From a letter from Capt. Ross, dated 22nd November, 1841, it appeared that the expedition was to sail the day following, to resume the investigation; it was his intention to traverse the isodynamical oval, surrounding the focus of greatest intensity, supposed to be in lat. 60° south, long. 235° east, commencing in long. 210°, and lat. 52° or 53° south; and steering thence directly to the edge of the ice-pack, to make, on reaching it, for the point where the first year's exploration of the new continent (of Victoria) had terminated, and to pursue that barrier; the working out of which intention might of course involve another winter, spent within the Antarctic zone. Should it be otherwise, we might expect ere long to hear of his arrival at the Falkland Islands; but, in the other alternative, another year would elapse without any further tidings of the expedition. As to *British and foreign observatories*, the British and Indian stations, except that at Aden, as well as the chief continental ones, had long been in full activity. The Russian government has been pre-eminent in the aid given. Supported by M. Cancrin, Minister of Finance, as well as aided by the funds placed at his disposal by Prince Mentchikoff, M. Kupfer had brought into activity magnetic observatories at Kasan, Barnaul, Nertschinsk, and Catharineburg. He had also effected the re-erection of observatories at Tiflis and Nicolayeff, and the erection of a new one at Moscow, under the care of Count Stroganoff, curator of the university of that city. These operations, conducted by every European power, had occupied much time; the original term granted by our own government

and the East India Company expired in the current year, just when the arrangements were completed over a great portion of the world, and the fruits were beginning to be gathered in. Accordingly, application was made to government by the President and Council of the Royal Society, for their continuation for another period of three years, to terminate in 1845; and at the same time it was officially stated, on the part of the Russian government, that the observatories in that empire should be kept up as long as the British ones, Baron Brunow stating, that this extension was the shortest term adequate to obtain results to repay the outlay. The British government gave an unhesitating assent to the continuation of the present scheme for three additional years. For this new period the past had been an excellent preparation; all improvements that experience could suggest would be adopted; the correction for the temperature of the magnets, which is found to be the most important of all, will have been determined. But the past had not been merely a season of preparation, it had afforded demonstrations of the ubiquity of those singular disturbances called magnetic storms, which could not otherwise have been obtained, and data for the revision of the Gaussian theory. As to *magnetic surveys*, in South Africa, Lieut. Clarke, R.A., had joined the observatory at the Cape, as assistant to Capt. Wilmot; and it was proposed that the survey should comprehend, in addition to the colony, as extended a portion of the earth's surface, from the observatory, as circumstances would permit. The Admiralty had instructed the Admiral on the station to permit the sea portion of the survey to be carried into execution, so far as it was not prejudicial to the service, in her Majesty's vessels, and these surveys would include the coast on each side the Cape, and then we should be better able to judge of the expediency of completing the survey by an expedition into the interior. In North America, Lieut. Lefroy, R.A., had been appointed to the principal observatory at Toronto; and was now in England preparing instruments. The Hudson's Bay Company had liberally undertaken to furnish conveyances in the years 1843-4 and 1845, to extend the surveys to the Pacific Ocean; and they also made an offer of passages on board their annual ships to England, and this would enable them to include in this magnetic survey Hudson's Bay and Straits. In the United States, Prof. Bache (of Philadelphia), during the last summer, had completed the survey of Pennsylvania, commenced in the previous year, including three series of observations—the declination, inclination, and intensity. Prof. Loomis had extended his observations of inclination over great part of Ohio, Indiana, Illinois, and Missouri. These, and numerous other observations and surveys in the States, would connect the northern British survey with the determinations of Capt. Barnett, of the *Thunder*, in the Gulf of Mexico. As to *observations at sea*, by Mr. Fox's instrument the inclination and dip of the magnetic intensity might be measured with all the precision requisite for every use to which observations at sea could be turned, for the purpose of tracing out the isodynamical and other magnetic curves in portions of the globe covered by water. To extend and facilitate the use of this valuable instrument, the set of instructions drawn up by Col. Sabine had been printed by order of the Admiralty, as a general circular, with some statements of the mode of using it practised on board the *Erebus* and *Terror*, and the hope was expressed that this method would be followed, not only in exploratory voyages, but by ships pursuing ordinary tracks, so as to furnish data for complete magnetic sea-charts. For these important observations, as well as the declination, it was necessary to eliminate the influence of the ship's iron—an evil increasing from the greater quantity of iron now used. After mentioning the observations of Capt. Belcher, of the *Sulphur*, on more than twenty islands in the Pacific seas, which had arrived in England, and would be published, and the important results deduced from M. Erman's journey in Siberia, the report noticed the subject of *magnetic disturbances*, respecting which Gauss remarked, that one of the results of this great British enterprise was that the existence and extension of these disturbances over the whole of the globe had been ascertained. As a physical fact, deeply connected with the general causes of terrestrial magnetism, this was indeed a result of the first magnitude; and considering all the

circumstances, how it was modified by distance and locality, was eminently calculated to lead to theoretical truths. It distinguished what was local from what was general, and traced individual shocks from observatory to observatory, and station to station, till they were so far enfeebled as to be confounded and masked by the growing influence of other shocks nearer the principal point of observation. The Report recommended smaller bars than those now in use, as more easily affected by sudden shocks. It was now considered advisable to collect from all sources to which we had access, accounts of the remarkable disturbances beginning with 1840 and 1841, arranging them in chronological order, and publishing them in volumes by themselves, and the first volume would be published in the course of this summer. The great disturbance of the 25th of September 1841, which was observed at Greenwich, and was immediately made the subject of a circular from the Astronomer Royal to his brother observers, was also observed at Toronto, St. Helena, the Cape of Good Hope, and Trevandrum in Travancore. All these arrived in time to be inserted in the volume for 1841; and surely it must be regarded as a remarkable fact, that this casual phenomenon was seized upon by our observers in Europe, Asia, Africa, and America, reported thence to England, reduced and printed in three months and one week after its occurrence, "tantum series juncturaque pollet." The returns from the different stations showed that these disturbances were general; that, though the movements individually might not be, and in fact were not, always simultaneous, the observations on the same day never failed to exhibit unusual discordances at all the stations, and were generally characterized by the diminution more or less of the horizontal intensity, prevailing more or less for several hours everywhere, and the movement of the north end of the needle towards the west. Besides the colonial observatories, these phenomena were watched with great attention at the observatories of Prague, Munich, and Greenwich. The Report next noticed the new magnetic instruments and modes of observation. We can only enumerate the former, viz. the transportable magnetometer, Dr. Lloyd's induction inclinometer, Weber's inductive inclinometer, and another method proposed by Dr. Lamont. The Report next enumerated the publication of various magnetic observations. The only expense incurred by the Association during the year, was 10l. 18s. 10d. for observatory registers, and the committee prayed a continuance of their grant. Sir John Herschel stated, that the committee for revising the nomenclature of the stars deferred reporting till the catalogue of stars, now in preparation under the auspices of the Astronomical Society, was ready for publication; and that the committee for the reduction of meteorological observations, in consequence of the illness of Mr. Birt, had been unable to make any considerable progress.

The Rev. Dr. Scoresby 'On Improved Permanent Magnets, and the Modes of determining their Powers, with certain undescribed Phenomena in Permanent Magnets.'—Dr. Scoresby exhibited a powerful, though moderately sized magnet, as a proof of the practical nature of his researches, and, after some explanations respecting the quality and temper of the metal in magnetized bars, he stated, that when his Researches (now in the press) on the Magnetic Power of the various denominations of Steel, &c. shall be completed, he will be able to determine, at once, and unequivocally, the proper kind and temper of steel, suited to a needle of any given size, and for any specific purpose.

Prof. LLOYD said, that Dr. Lamont, of Munich, was following out a similar course of investigation. M. Nobili had endeavoured to ascertain the constitution of permanent magnets.

Col. SYKES 'On the Meteorology of the Province of Coorg in the Western Gâts of India.'—The capital of Coorg stands at an absolute elevation of 4,500 feet, and the barometrical observations made there show the same horary variation or semi-diurnal oscillation of the atmosphere, which Humboldt had observed in South America. Col. Sykes in the Deccan, Col. Sabine on the coast of Africa, and which did not wholly disappear, though it diminished in amount, and became hard to detect amid increasing irregularities, in high latitudes.

Mr. LUKE HOWARD produced a chart exhibiting,

in curves, the chief meteorological changes observed by him during a cycle of eighteen years. The results of these observations will be found developed and explained in his work on the Climate of London.

A letter from Dr. Lamont, director of the Observatory at Munich, was read, stating the names of a great number of professors in Germany, France, Italy, &c. who were aiding in making meteorological observations (commenced seven months ago), so as to present a complete series, extending over the vast tract of country between the Pyrenees and the Russian frontiers. The results are published in the *Annalen für Meteorologie, &c.*

Sir D. BREWSTER made a communication 'On the Dichroism of the Palladio-chlorides of Potassium and Ammonium.'—Dr. Wollaston had found that a long crystal of either of these salts, when looked through transversely, had a green colour, but when looked through from either end, had a red colour; and he (Sir D. Brewster) placed one of these long crystals transversely over another, in a cruciform shape, and then found that those portions of the centres of both, which were in contact, gave a red colour, while all the ends of the crystals were red.

The President then said, that a letter had been placed in his hands from Prof. Marianini in Italian, which he had undertaken to translate for the Section; but the heavy duties which had devolved upon him during the week, completely prevented him. It contained a communication 'On the Magnetic Action of Instantaneous Currents of Electricity.'

SECTION C.—GEOLOGY AND PHYSICAL GEOGRAPHY.

MONDAY.

'On the Great Lancashire Coal Field,' by Mr. E. W. Binney.—This carboniferous deposit, generally known as the Lancashire Coal Field, occupies the chief part of the southern division of the county of Lancashire, and extends into portions of the adjoining counties of Chester, Derby and York; in a line from near Macclesfield to Colne it ranges about 46 miles due N. and S., and from Tarbock to Todmorden about 40 miles from W.S.W. to E.N.E. It commences with the lower millstone grit, and extends upwards into the limestone of Ardwick, near Manchester, now generally considered the highest portion of the coal measures, hitherto observed in England. The author divides this series into three groups in descending order.—1. *The Manchester Coal-field*, containing the limestone of Ardwick, and the isolated coal measures of Clayton and Bradford, near Manchester, occupying the low tract of country adjoining the new red sandstone plains.—2. *The middle field*, comprising the thick coal seams of Poynton, Ashton, Middleton, Worsley, Wigan, &c., occupying the rising ground between the new red sandstone plains, and the higher parts of the country, and containing the richest portion of the field.—3. *The lower coal-seams*, found in the elevated parts of the country, along the sides of the Penine chain, and the moorlands of the northern parts of Lancashire; comprising those of Whaley Bridge, Mellor, Glossop, Rochdale, Todmorden, Colne, Blackburn, Chorley, &c. Seams of no great thickness, but valuable from their quality and position, and remarkable from their adjoining shales containing remains of the genera *Pecten*, *Goniatites*, *Posidonia*, and other shells of marine origin. The total thickness of the deposits varies in different parts of the field; in a line from Manchester, through Ashton, to the limestone shales of Hollins Brook, the thickness is about 2000 yards; and there are 75 beds of coal exceeding one foot in thickness, forming altogether 150 feet. In a line through Worsley, Bury, Burnley, &c. to the limestone shales of Pendlehill, there are 36 seams, only ten of which are less than one foot in thickness, amounting to 93 feet of coal; in these sections the smaller seams are not taken into account. The author states that the variable character of these coal seams and the accompanying strata, make it difficult to lay them down upon a map; the lower seams can be classed by the gritstone rocks which contain them, as shown by Mr. Elias Hall, but the middle and upper seams divide and thin out in such a manner as to render their identification very difficult. He then proceeds to describe the roofs, or strata immediately overlying the coal seams, the coal itself, and the floors or strata immediately underlying the beds of coal.

I. *Roofs.* The deposits forming the roofs vary at different places, even over the same seam. There are four kinds of roofs.—1. A fine mixture of alumina and silica, with oxide of iron, and a trace of the carbonates of iron and lime; these are generally known as *blue binds*, and are of most frequent occurrence; they almost always contain ferns, and remains of *Stigmaria*, *Sigillaria*, *Ulodendron* and *Lepidodendron*, and beds of the *Unio* and other shells. The *Sigillaria*, &c. are often found standing erect at right angles to the planes of stratification; these instances chiefly occur in the *middle field*, at Pendleton, Dixon-fold, Wigan, &c. Sometimes they are found with their roots running into and resting on the seams, and more frequently the bole of the tree rests on the coal itself, without exhibiting any trace of roots. The *Sigillaria* are by far the most common; at Pendleton and Dixon-fold they occur as abundantly as they could possibly have grown: the author had observed three specimens at Pendleton, 24 feet high and about 3 feet in circumference, standing in a shaft 11 feet in diameter.—2. *Roofs of sandstone* are not common, and where they do occur the coal is generally inferior in quality; the fossils found in the sandstone are usually prostrate coal plants, *Stigmaria*, &c.—3. *Black shale roofs* are frequent, and cover most of the best house-fire and caking coal; they seldom contain plants, though, in a few instances, upright *Sigillaria* have been found. Bivalve shells, detached scales and teeth of fish frequently occur in them, and with the *Microconchus carbonarius* and casts of *Cyprides* sometimes constitute nearly the entire mass; almost all the black shale roofs of the lower field team with remains of *Pecten*, *Goniatites*, *Posidonia*, and remains of fishes.—4. *Shales with highly bituminous schists*, forming roofs, are not of frequent occurrence; they are found at Peel and Pendleton, and contain abundant remains of fish, mostly entire. At Bradford and at Ardwick, in the roof of the thin coal intercalated with the limestones, the detached teeth, bones and scales of fish occur, mingled with countless myriads of the remains of *Cypris* and *Microconchus*.

II. *Coal and Cannel Seams.* The author describes two varieties of coal, the *cubical* where the cross cleavage runs at right angles to the main cleavage, and the *rhomboidal* where it makes an acute angle; the first form generally occurs in the upper and lower portions of the field, the latter prevails in the middle. The main cleavage, he observes, is, in most cases, parallel with the principal fault in the vicinity. The beds of *cannel* are generally found on the top of the coal, and nearly always contain remains of fishes, often bivalve shells, but hitherto have exhibited no trace of *Microconchus*, and rarely any leaves or stems of plants, whilst the upper portion of *coal* seams frequently exhibit traces of *Sigillaria*, *Lepidodendron*, *Calamites*, &c. In the six feet seam at the new pit of the Pendleton Company, several rounded stones of fine siliceous grit were found, but as they occurred near the great fault of 1000 yards, they might have fallen in during the dislocation. The coal seams are either simple, and continue undivided over large tracts of country, or split and divide into several distinct seams; the former generally occur in the lower portion of the field, the latter in the middle and upper part. It is owing to this tendency to divide, that the thick seams of Clifton and Radcliffe cannot be well identified with the thinner and more numerous seams of Oldham, Ashton and Bradbury; in the four feet mine at Pendleton, the author has observed that the coal on the N.W. forms one undivided seam of 5 feet in thickness, but that towards the S.W. a thin bed of fire-clay full of *Stigmaria* appears in it; and in Mr. Fitzgerald's pit to the S.E., it gradually thickens until at a distance of 900 yards from the point first observed, it has increased to 3 feet, separating the coal into two distinct seams. At Alkington the two Beat Mines are worked together, but to the S.E. a parting of fire-clay appears, which gradually increases in thickness, and at Oldham, 3 miles distant, the two Beat Mines are worked 10 yards apart; other instances of subdivision are known, all of them taking place towards the S. and S.E. Independently of the tendency to divide, many seams diminish in thickness till they become evanescent; this is chiefly observable in the lower division of the coal-field, and in the simple seams six beds which have been worked in that series, give decisive evidence of this fact. The best

examples are the *caking coal* of Rochdale and the *Foot mines*, beds known by various names in different parts of the country, but easily identified by the remarkable nature of their floor, which is a hard crystalline stone, called *Gannister*, full of *Stigmaria fooides*, and employed as a material for mending roads. At Dulesgate, near Todmorden, the upper or "Gannister coal" is 5 feet 8 inches in thickness, and the *Foot coal*, about 12 yards below it, is 7 inches thick; the author has traced these seams about 11 miles to Quarleton, and ascertained that the *Gannister* coal gradually diminishes in thickness to one inch, while the *Foot coal* increases to two feet, the floors retaining the same character throughout.

III. *Coal Floors.* The stratum on which the coal rests is always carefully noticed by practical miners, who believe that where a thin seam is found on a thick argillaceous floor full of *Stigmaria*, it is certain to become workable if followed. The floors are of three kinds—the *fire clay*, which is the most abundant; the *warrant*, a clay mixed with a larger amount of silica occurring frequently; and the *rock* floors, of which but two instances are known, namely, the floor of the Featheredge coal at Walmersley, which is a rough quartzose sandstone, and the *Gannister*, before noticed. The latter is merely a fine grained admixture of silica and alumina, varying from 8 inches to 2 feet in thickness, always graduating into a fine fire-clay at its bottom. All the floors, with the exception of the rock floor of the Featheredge coal, contain *Stigmaria fooides*, from the thin seams of the Ardwick limestone, to the two seams in the millstone grit of Gauxholme, near Todmorden, a thickness of nearly 1600 yards; all the fifteen floors of the Manchester coal-field contain it, and at least 69 beds in the middle and lower divisions. The *Stigmaria* generally occurs with its leaves attached, and in all instances of *true floors* without any intermixture of other plants. These facts seem to indicate that all the deposits were formed under nearly similar conditions; the roofs and floors were evidently very quietly deposited, and formed a strong clay, well adapted for the growth of the vast masses of vegetable matter required for the formation of the coal seams. The absence of alkalies in the clay of the floors, might be expected from the exhausting properties of plants, and seems to strengthen the supposition that these beds supported the vegetation which now constitutes the coal. The remains of bivalve shells and fishes in the *cannel* beds, prove that they were formed under water; but in the Lancashire coal-field, no remains of fishes or shells have yet been found in the coal, nor is there any indication, either by admixture of sand or silt in the seams of coal, to show that they were drifted into the places they now occupy by rapid currents of water. The occurrence of forests of large trees standing upright on the seams, the pure vegetable matter composing the coal itself, with scarce any admixture of foreign ingredients, the position of the coal upon a rich alluvial deposit well adapted to sustain a luxuriant vegetation, seem to prove that, in most instances, the vegetable matter forming it, grew upon the spot where the coal is now found; whilst the splitting and alterations in the thickness of the seams themselves, show that the surface was most probably subject to frequent subsidences.

Dr. BUCKLAND remarked that the observations of the late Mr. J. E. Bowman, Mr. Logan and Mr. Binney, had obliged geologists to modify their opinions. He now believed that the greater part of the coal-measures had been formed from the Lacustrine deposits, whilst certain portions were still to be considered of marine origin, and probably drifted into estuaries and embouchures of rivers, and interstratified with terrestrial and fluviatile remains.—Sir H. T. DE LA BECHE observed, that the under clay had been found retaining the same characters in Glamorganshire, in the neighbourhood of Bristol, in Yorkshire, in Scotland and Ireland, and Mr. Logan had discovered it as constantly in the coal-fields of Pennsylvania and Nova Scotia; and he thought some common cause ought surely to be assigned to phenomena so widely diffused. That the coal itself was of vegetable origin there could be no doubt, and the researches of Liebig had shown that such a change might be effected chemically under certain conditions. With respect to the subsidences supposed to have attended the formation of coal, he considered such occurrences to have been frequent up to a very late

period; submarine forests composed of standing and prostrate trees were common, and he described one in the bay of Swansea, where the fundamental rock was covered with clay and peat, and above were the trunks of trees, standing as they grew, with their roots in the peat; the land must have been depressed, and then the deposit became covered over, in some places, with drifted mud and sand and gravel, so as to represent precisely the circumstances under which the trees were found at Bolton. If similar submergences took place in tropic seas, coral reefs would form over the peat and trees, and thus account for the occurrence of limestone, as well as sandstone, shale and conglomerate, over the coal. The formation of coal might be accounted for in various ways, and there could be no doubt that drifted materials did form thin beds of coal under precisely the same conditions, the vegetables being drifted so unmixed with detrital matter as to form a purely vegetable deposit; but under coal seams thus formed, there were no under clays with *Stigmaries*. He, therefore, regarded the question of drift only as one of amount: if the drift of vegetable matter was large, a bed of coal might result; but he had never seen a *workable* coal bed which did not bear out Mr. Binney's conclusions.—Mr. PHILLIPS remarked, that in the Lancashire coal-field there were only about 85 beds of coal associated with a thousand beds of sandstone and shale, which had been unquestionably drifted by water, but whether in a river, estuary, or deeper water, there were no data to determine. The evidence derived from the occurrence of trees *in situ* at St. Etienne, as originally adduced by Brongniart, was not very conclusive, from the various positions of the trees and their fragmentary aspect; but this argument derived great confirmation from the trees at Dixonfold, which were all at right angles to the plane of the coal bed on which they rested: a position in which drifting by water could not be expected to place trees of different species, and possessing roots with different structure, with so much regularity. It had occurred to him that the abundance of cones at the base of the trees was also opposed to the idea of drifting, as it would require different forces of water to drift large trees and cones. The third class of phenomena was the occurrence of shells and fishes, associated with and forming extensive layers over the coal seams; many of these shells were analogous to those living at the present day in fresh waters; the upper strata especially appeared to be of fresh water origin. From all these facts, Mr. Phillips stated, a certain limited inference might be drawn; but he thought it was far more important to establish a strict and logical process of reasoning, to be employed in future investigations, than to arrive at any positive conclusion in the present case.—Mr. SEDGWICK admitted that the occurrence of trees *in situ* had been distinctly proved, and also the high probability of much of the coal having been formed on the spot; this view, he stated, was not a new one, it had been contended for by all the Scotch geologists; Dr. Macculloch had supported it, and one Professor had even attempted to estimate the period required for the formation of a seam of coal by the time occupied in forming a peat bog.—Mr. GRIFFITH illustrated the mode in which he considered the coal measures had been formed by describing the general condition of the peat bogs in Ireland; they appeared to occupy basins which had originally been lakes, but the peat-moss had grown up to the level of the water, and afterwards by capillarity 20 or 30 feet higher. The base of these bogs consisted of clay covered by a layer of peat composed of rushes and flags, above which was another bed of peat closely resembling canal coal, possessing a conchoidal fracture, and hard enough to be worked into snuff-boxes; it yielded 25 per cent. of ashes, and contained a large proportion of oxide of iron. This bed was covered with black peat containing branches and twigs of fir, oak, yew and hazel only the bark being left; and where whole trees occurred the roots were entirely gone; the surface was formed of ordinary bog-moss (*Sphagnum*) nearly white. The whole amount of peat, in this bog, Mr. Griffith thought would form a coal seam at least 3 or 4 feet thick. Mr. Griffith also mentioned some of the tertiary lignites of the basaltic region in the north of Ireland, which exhibited a variation in thickness of from 3 to 30 feet in the space of 100 yards. At Lough Neagh these tertiary formations attained a thickness of 98 yards, composed of alternations of

wood, coal, clay and sand.—Dr. FLEMING observed, that in attempting to explain any class of phenomena it would be well to begin with the distinct and end with the obscure: with this view, he recommended inquiries to be instituted into the present character of peat, which presented many analogies to coal, and, like it, was of several different kinds, and found under various circumstances. He then described a bed of submarine peat off the Shetland islands, resting on and covered by gravel; a lake had been formed within a barrier of sand and gravel thrown up by the sea, and rendered impermeable to water by a lining of mud brought down by rivulets; this basin had been filled up by the growth of plants, and subsequently the sea had again reduced the barrier and covered the whole with gravel and shells. In the bay of Aberdeen after very severe storms, large masses of solid peat were thrown ashore, not unlike canal coal in hardness and fracture. This deposit seemed to have been formed by the vegetable matter carried down by the Doe and Don, constituting a marine coal formation, in which the leaves of the oak and thorn were found mixed with *Sertularia* and marine productions.—The MARQUIS OF NORTHAMPTON remarked the importance of studying causes now in action, with the view to determine the origin of ancient phenomena; and he expressed a hope that Dr. Fleming would make a full and detailed report on the structure and formation of peat at the next meeting of the Association.

'On the Remains of Insects in the Lias of Gloucestershire,' by the Rev. P. B. Brodie.—The PRESIDENT read a letter from Mr. Brodie, stating that his former discovery of insects in the Wealden formation of Sussex had led him to a close investigation of the strata in the neighbourhood of Cheltenham, where such fossils were comparatively of great rarity, having hitherto been found only once in the lias. The remains detected by Mr. Brodie consisted of the elytra of one or more genera of Coleoptera, one or two minute beetles, and a few wings resembling those of the Libellula. They were generally of small size, the largest elytra being little more than half an inch long, and the largest wing about an inch in length. The beds in which they occur consist of thin courses of blue, green, and white limestone, forming some of the lower beds of the lias formation, so extensively developed in the vicinity of Cheltenham and Gloucester.

Mr. H. E. STRICKLAND mentioned a wing of a Libellula twice the size of the largest British species, found in the lias of Hatherleigh, near Gloucester. The remains of insects probably indicated shallow water and the proximity of land.

'On the occurrence of Boulders in the valley of the Calder,' by Mr. J. Travis Clay.—The author describes the valley of the Calder as a narrow, and almost always level tract of land, bounded on both sides by upright hills of the regular coal strata, and destitute of boulders. The level of the valley is composed, near the surface, of sand, clay, and small pebbles; but at the depth of five feet there is a bed of much larger boulders, chiefly derived from the neighbouring rocks, and also many of granite. The peculiarity of the deposit consists in its being confined to this narrow stripe, frequently not a quarter of a mile in width, yet extending continuously east and west for many miles; the author had traced it from Hebden Bridge, near Halifax, to Wakefield, a distance of twenty miles, and he had no doubt it extends further east, till it unites with the great mass of drift occupying the vale of York. The author considers this deposit to have originated when the elevation of the land was much less, in which case the level parts of the country would be submerged, and the narrow dales of Yorkshire sea-lochs, like those of Scotland, along which glaciers detached from the Cumbrian mountain would be floated in every direction.

Mr. PHILLIPS remarked, that the granite of these boulders resembled that of Ravensglass, and not the granite of Shap Fell; the others were common Cumberland and Westmorland rocks, the metamorphic rocks of Hard Knot, and some belonged to the *gannister* of the coal. He considered these phenomena as belonging to the same class with the dispersion of the rocks in the neighbourhood of Manchester.

'On the occurrence of Vegetable Remains in the

new Red Sandstone of Staffordshire,' by Mr. J. Dawes.—The strata in which these remains occur, were exposed in forming a canal between Birmingham and the collieries near Tipton, through Gravelly Hill, Perry, and Great Barr. At the latter place, the author states, Silurian limestone has been found close to the surface, with traces of carboniferous rocks and coal, dipping under the new red sandstone on the Birmingham side of the axis; thus affording evidence in favour of the recently-expressed opinion, that the South Staffordshire coal-field extends under that town.

'Notice of the Fossil Footsteps in the new Red Sandstone quarry at Lymm, in Cheshire,' by Mr. Hawksshaw.—The quarry in which these footsteps were detected was situated at a short distance to the east of Lymm, south of the turnpike road to Altringham; the general dip of the strata was about 5° to the S.S.W., and the quarry was near the outcrop of the beds, which consisted of alternations of red and grey sandstone in beds of a few inches thick, grey marls, and laminated shales; the rock underlying these strata was a thick bedded sandstone, deeply impressed with oxide of iron, and very indistinctly stratified. Fossil footsteps had been found in nearly all the sandstone beds, those of the upper part were small pointed impressions, resembling the tracks of crustacea, and others like the feet of birds; *Cheirotherium* footsteps also occurred in the upper beds, but they were of small dimensions, and appeared to increase in magnitude as the beds descended. The impressions varied in length from 7/8 of an inch to 1 1/4 inch long in some slabs; on others they were 3 or 4 inches in length, and upon one dark red slab was an impression 10 inches long, and of a peculiar form, as if the foot which made it had been furnished with claws. On a slab of 20 inches diameter there were two impressions, a small one preceding one which was 9 1/2 inches in length; another similar footprint was 7 1/2 inches long. Both these last-mentioned footmarks were covered with small papillae, about 100 to the square inch in the larger specimen, and about 220 in the smaller; their distinct appearance and arrangement were described by Mr. Hawksshaw as suggesting the idea that the feet of the animal which formed them was furnished with a rough skin.

Mr. MURCHISON observed, that the sandstones at Lymm appeared to belong to that great series which he and Mr. Strickland had referred to the keuper; whilst those described by Mr. Dawes in the previous paper were perhaps to be considered a part of the lower new red, which was now acknowledged to belong to the carboniferous group.

'On the North Coast of America,' by Mr. R. King.—In this paper the author reviewed the attempts hitherto made to survey the northern parts of the American continent. He recommended an expedition for that purpose in boats, and expressed a hope that the discoveries already made in that quarter would not be abandoned, but that new and more judicious efforts should be made to complete them.

Dr. RICHARDSON said, that as the Hudson's Bay Company had engaged in the survey of the north-western coasts, he would contentedly leave the business in their hands.

The Rev. DAVID WILLIAMS exhibited drawings illustrating the relation of the volcanic rocks of the S.W. of England; and Mr. ELIAS HALL produced drawings of sections representing the structure of Derbyshire and Yorkshire.

'On the stratified and unstratified Volcanic Products of the West of England,' by the Rev. David Williams.—This communication was supplementary to that which Mr. Williams made last year at Plymouth. Subsequent investigation, on a far more extended scale, had confirmed him in the results he then announced, viz. that granite, gneiss, mica-schist, porphyry, greenstone, tuffaceous ash, breccia, grit, chlorite, talc, and clay slate, were all volcanic products, and that no such distinction as the so called "plutonic rocks" really existed in nature—they were, in short, associated together by evidences of their common origin, and connected together by a series of mutual dependencies, and as such were capable of definite classification, as erupted products, as rocks *in situ*, which have been fused, semi-fused, or had been in some other particular stage of fusion, and as rocks simply altered by contact with injected burning lavas. His object was to reduce the entire

family of ancient volcanic products within the scope of recognized laws, and the ordinary operations of nature. He pointed to a diagram he had constructed, of an ideal volcanic centre in a phasis of activity, which (by admitting modifications to a greater or less amount,) he submitted might serve as an illustration of the process of fusion and conversion (so far as the rocks of the earth had been submitted to our view) throughout all regions and all times. He supposed an internal nucleus of white incandescent lava, whose outer border was surrounded by a zone of gneiss, the zone of gneiss by an outer concentric zone of mica-schist, and the mica-schist by any sedimentary strata, as the case might be; under certain circumstances, he contended that these strata, and the inner concentric zones of mica-schist and gneiss would be invaded by ramifying and anastomosing veins emanating from the internal fluid, to an extent proportionate to the temperature; these veins would convert the zone of gneiss into incandescent lava, the mica-schist into gneiss, and a proportionate thickness of the sedimentary strata into mica-schist; and if the *vis à tergo* of heat should be maintained, such transformations would progressively advance till the superincumbent or outermost strata being reduced to their point of least resistance, they would necessarily yield to the pressure or expansive force of the augmenting volume of the liquid matter, and present all the phenomena of a crater of elevation. From the whole amount of his observations, taken round the granite of Dartmoor, Bodmin Moor, &c., he considered that if Von Buch had not proposed the theory of "Elevation Craters," geologists would eventually have been constrained to have recourse to some hypothesis of the kind to explain the appearances presented by those granitic domes. A series of specimens might be gathered from many localities in South Devon and Cornwall which would show an insensible transition from the coarser volcanic grits and breccias into the finest clay slate, every variety of which he had traced up to those more typical products. Mr. Williams stated, that his inquiries had resulted in the conviction that granite, gneiss, mica-schist, clay slate, &c., are no evidence of age or position in the geological scale, but that they appertain to all formations, from the most ancient to the most recent; he considered gneiss and mica-schist were not simply "metamorphic" rocks, but rocks in a particular or definite stage of fusion; and he therefore suggested that they should be termed intermediate products, and granite, porphyry, trap, breccia, grit, ash, chlorite, talc, and clay slate, immediate products of volcanic action.

SECTION D.—ZOOLOGY AND BOTANY. MONDAY.

MR. WEBB HALL read a paper 'On the Promotion of Vegetable Growth,' in which he showed the importance of the subject, not only to the general resources of the country, but in its direct relation to the scientific objects of the Section. He traced the several causes of vegetable growth, and enumerated the elementary constituents needed for that object; showing the progressive changes through which the simple elements were carried by the several processes of fermentation and combustion on organic vegetable matter. The products of each of these processes of dissolution he claimed as the essential elements for promoting the growth of vegetation, arguing that that which had already been produced by vegetation, could again be applied, by the processes above described, to the same purpose, after separation into its original constituent parts. Founded upon this principle, he then described the mode adopted by Mr. Daniell, of Tiverton, in taking advantage of this principle in the laws of vegetation, and by an application of the sources of fermentation and combustion to the soil, under circumstances of minute mechanical subdivision, and in a state fitted for solubility, to promote the fertility of the country, and the growth of the most useful and most needed plants. The long-continued experiments under which this had been accomplished were detailed to the Section, showing that the result was highly favourable; while, on the other hand, it was argued, step by step, from the nature of the elementary substances required, and the capability of these being afforded in the required way, that the philosophical reasons for such success were as simple and obvious as the facts were plain.

Prof. DAUBENY said that it was only right, that, as the farmers had in a manner undertaken to supply the country with food, they should take care that that supply was as large as possible. In the present condition of this country, there was not enough natural manure for the plants that produced food, hence there was a necessity for artificial manures of various kinds. Nitrate of soda was brought from Peru to supply our plants with food. If woody fibre could be easily converted into humus, there could be no doubt of the great value of the process.—The Rev. J. B. READE said, that in order to prove the existence of ammonia in plants and in rain water, there was no occasion to have recourse to chemical experiments. He had been enabled to detect crystals of muriate of ammonia in a drop of rain-water let fall on a glass with a drop of muriatic acid, by means of the microscope. He had also detected in the cells of plants crystals of the salts of potassa and soda. These salts were generally deposited in the interior of the cells of plants.—Dr. PLAYFAIR did not believe that the bituminous matter contained in Daniell's manure was of any service. He had seen tar-water most decidedly injure grass to which it was applied, and he thought this manure would be improved by its absence.—Dr. LANKESTER thought that Daniell's manure might fail on other soils, though it had at present succeeded. It might be deficient in some inorganic ingredient which these soils contained, and though it might afford an abundance of carbonic acid and ammonia to plants, it might not succeed for want of less important ingredients. It had been stated that this manure contained sulphur: he had seen instances of plants growing luxuriantly where they obtained small quantities of sulphuretted hydrogen, and believed this agent was useful as a manure. Most organized substances contained small quantities of sulphur. This might be readily introduced to plants by decomposition of the sulphates in contact with the vegetable matter of the soil.—Prof. JOHNSTONE did not think Daniell's manure contained all the ingredients necessary for the nutrition of corn crops. It would probably fail on some soils. Sprengel had long ago proposed the sulphurets as manures. He thought sulphuretted hydrogen in small quantities might be favourable to vegetation. He had found it present in small quantities in most soils.—Mr. E. SOLLY, Jun., thought that the bituminous matter might act mechanically on the soil. Liebig had stated that sulphuretted hydrogen was poisonous in any quantity to plants. He had watered peas and beans with sulphureous water, and they had grown well. Cabbages thrive best on dunghills, which gave out large quantities of sulphuretted hydrogen. Turner and Christison's experiments prove that this gas was injurious to plants when their leaves were exposed to its influence.

Dr. PLAYFAIR read the Report of Prof. Liebig 'On the Application of Chemistry to Animal Physiology,' which had been read in the Chemical Section, (see ante p. 569.)—Prof. DAUBENY took the opportunity of alluding to the review of Prof. Liebig's first Report by Dr. Schleiden—a production which had been introduced to the English reader through the medium of the *Gardeners' Chronicle*. He thought the public was indebted to the editor of that journal for making known so widely the opinions of so distinguished a physiologist as Schleiden. At the same time, he thought Schleiden had been too severe in his criticisms on Liebig, to whom science was in the highest degree indebted for his labours and researches in organic chemistry.

'On Liebig's Theory of Fallow Crops,' by the Rev. J. B. READE, M.A. F.R.S.—The fallow time, as Liebig observes, is that period of culture during which land is exposed to a progressive disintegration by means of the influence of the atmosphere, for the purpose of rendering a certain quantity of alkalies capable of being appropriated by plants. Careful tillage increases and accelerates this disintegration, and secures from time to time a new supply of soluble alkalies. Now Liebig states, that, for the purpose of agriculture, it is quite indifferent whether the land be covered with weeds, or with a plant which does not abstract the potash inclosed in it. Accordingly, he would alternate with corn crops, which extract the alkalies of the soil, the usual fallow plants in the family of the Leguminosæ, because, "being remarkable on account of the small quantity of alkalies, or

salts in general, which they contain," they neither extract alkalies from the soil, nor do they exercise any injurious influence on the corn which is cultivated after them. The farmer is hereby greatly advantaged in being able thus to steal, as it were, an intermediate crop from his land, inasmuch as an entire absence of plants appropriating these unimportant quantities of salts would of necessity compel him to the constant repetition of bare fallows, in order that the soil, during an interval of rest, might regain its original fertility. Such is the theory. The fact, however, most unquestionably is this—that the plants in the family of the Leguminosæ, usually cultivated as fallow crops, so far from acting but slightly on the saline constituents of the soil, are remarkable, above all others, for the large quantities of soluble salts contained in them. The experiments by which this result may be arrived at are very simple. If two pounds of bean straw, and of clover hay, be submitted to the action of fire and allowed to burn till they cease to give any flame, they will yield about two ounces of ashes; and distilled water (about two pints) being poured upon the hot ashes, and repeatedly filtered, after squeezing it from the insoluble residuum, is charged with the soluble matter which, to a certain extent, is set at liberty by the process of combustion. The quantity of soluble matter, chiefly potash, contained in the clover saline solution, appears, upon evaporation, to be about ninety grains, and, in the bean saline solution, about forty grains; whereas, by a similar operation upon the ashes of wheat, barley, and oat straw, the soluble saline matter does not amount to thirty grains. The presence of potash may be detected in these solutions, not only by the well known smell peculiar to *Liquor potassæ*, but also by the characteristic crystalline precipitate on the addition of bichloride of platinum, by the copious insoluble bitartrate of potash on adding the solutions to tartaric acid in excess, and by the salts of potash formed with mineral acids. The saline solution from bean straw is also remarkable for containing lime in solution, and hence, probably, we have one important cause of the strength of bean straw manure. In twenty-four hours after the clean bean solution is obtained, a crystalline precipitate of carbonate of lime is attached to the sides of a stoppered bottle, and, in the course of a few days, it considerably increases in quantity. All the solutions, when evaporated to about half an ounce, exhibit a remarkable precipitate, which, upon being separated and washed, ceases to be soluble in water, and the action of acids and alkalies, as well as of the blowpipe upon this substance, is accompanied with phenomena which deserve the attention of agricultural chemists. The condition of carbon in these solutions ought also to be accurately examined. It is not my province to account for the mode by which Liebig arrives at erroneous results, but if an English acre, which not very unfrequently produces, in the course of a season, four tons of clover hay, be drained by this fallow crop of upwards of half a hundred weight of soluble saline matter—a greater quantity than would be produced, according to Liebig's views, by the fertilizing influence of a whole year's rain, which would dissolve less than $\frac{1}{1000}$ part of its weight of organic matters, we must cease to ascribe the unquestionably beneficial influence of these fallow plants upon our corn crops to their inability to exhaust the saline constituents of the soil. Whence, then, is the value of these fallow crops, and what the true theory of fallow? May it not be the case, that the leaves which fall so abundantly from these plants, and the roots which remain in the ground being so copiously supplied with saline matter from the presence of potash in every cell, do really furnish more soluble alkalies by the subsequent process of tillage, than the soil, especially when of a sandy nature, could in any other way obtain for the future production of corn?

Dr. PLAYFAIR thought there must be some error in Mr. Reade's mode of experimenting, and pointed out what he considered the sources of fallacy.—Prof. JOHNSTONE thought Liebig's theory of fallows wrong. Sprengel had long ago pointed out in his analysis of plants that the green crops—the leguminosæ, contained large quantities of potassa and soda, which it was strange Liebig should deny.—Prof. DAUBENY believed that Liebig was wrong in adopting De Candolle's theory of rotation of crops. It was very doubtful if plants gave out excrement-

tionous matter injurious to their kind. They probably exhausted the soil of the ingredients necessary to their life, and thus the same species would not continue in the same spot for more than two or three generations.

Mr. ALLDER, of Newcastle, read a description of three new species of Mollusca of the genus *Eolis*; lately found by Mr. Albany Hancock, on the coast of Northumberland; and also exhibited drawings by that gentleman of these, as well as of some other new species of Nudibranchia, descriptions of which had appeared in the 'Annals of Natural History.' Mr. Alder took the opportunity of stating, that Mr. Hancock and he were still pursuing their examination of the British species of this order, and but lately had a further opportunity of confirming the fact of the existence of eyes in the genus *Doris*, having found a young specimen of the *Doris depressa*, in which the eyes were very distinct. He stated that they had made some examinations with the microscope of the elegant appendage in *Melibeia*, *Tritonia*, and *Eolis*, which are usually considered to be branchiæ. They found that in *Melibeia ornata*, vibratory cilia existed all over the body, but in a less degree in the supposed branchiæ than in other parts; and that an individual deprived of these appendages lived for several days afterwards without apparent diminution of activity, thus proving that these were not the only means of respiration that the animal possessed.

SECTION F.—STATISTICS. MONDAY.

Mr. HENRY ASHWORTH read a paper 'On the Increase of the Value of Property in South Lancashire, and particularly in the hundred of Salford, since the Revolution.' Having described from the old chronicles the condition of this part of the country, when William the Conqueror, on his return from his expedition against York, was scarcely able to make his way through its fastnesses and morasses, and further illustrated its ancient savage state by various documents relating to the forest and chase of Rossendale, he showed that in the age of James I., the antiquary Camden felt a kind of dread in approaching the frontiers of South Lancashire, and had, as he records, supplicated the Divine protection, as if about to enter a barbarous country. The first authentic estimate of the value of property in South Lancashire was the assessment of 4s. in the pound for the land-tax in the reign of William III., and Mr. Ashworth compared this with the assessment for the county rate in 1841. Taking, for instance, the township of Great Bolton, the total amount of land-tax in that township, redeemed and unredeemed, was 33*l.* 16*s.*, which, multiplied by 5, gave the sum of 169*l.* as the rental of that township in 1692. In 1841, the annual value of the same township, as rated to the county assessment, was 93,916*l.* He then contrasted the increase in the value of property of those parts of the duchy of Lancaster engaged in agriculture, with the increase in the districts where manufactures had been established, showing that manufacturing industry had not only promoted the prosperity of the places in which it was developed, but that it had extended its benefits to the whole surrounding districts, increasing the rental of mere land in some instances 1,500, and in others 3,000 per cent. The best of Rossendale contains an area of twenty-four square miles. In the early part of the sixteenth century, the inhabitants consisted of 80 souls, now increased to upwards of 21,000; and land used exclusively for farming purposes had recently been let for upwards of ten times the rental it fetched a century ago; and tenants were now living whose lands command from seven to eight times the rent they formerly paid. In the more populous localities, land for building purposes lets at from 6*d.* to 6*d.* per square yard, and at from 120*l.* to 130*l.* per acre per annum, being more than the rent of the whole forest of 1,500 acres in the time of James I. By the land-tax survey, its annual value was 1,062*l.*; last year it was 50,035*l.*, being an increase of 4,700 per cent. in 150 years, and of 41,000 per cent. since the time of James I.

A paper was read, communicated by the Rev. Mr. Jones, 'On the Commercial Statistics of France in 1840.' The total amount, in value, of the Trade (imports and imports included,) of France, during 1840, was greater than in any previous year, and

reached the sum of 2,063 millions of francs. What is termed the *Special Commerce* of France, (that is to say, the products of her own soil or manufactures exported, and the articles imported for her own consumption,) amounted to 1,442 millions, out of the 2,063 millions; being, imports, 747 millions; exports, 695 millions. Out of the total trade for 1840, the exports and imports, by sea, amounted to 1,481 millions, or about 71*½* per cent., and those by land to 582 millions, or about 28*½* per cent. Of the imports and exports by sea, 705 millions, or 48 per cent. were effected in French bottoms, and 776 millions, or 52 per cent., in foreign bottoms. The United States had the greatest share of the imports into France; since they amounted to 176 millions, or 17 per cent. of the total general imports; and 118 millions, or 16 per cent. on the special imports. The general imports from England amounted to 61 millions, and the special imports to 32 millions. The following table gives the proportion of the special trade to the general trade of France, for three periods:—

	1835.	1839.	1840.
United States ..	78 per cent.	68 per cent.	64 per cent.
England	57	66	67
Sardinia	65	64	63
Switzerland	35	38	35
Spain	34	72	77
Belgium	82	86	88
Germany	63	76	74
Russia	80	70	85

Of the articles forming the objects of this trade, it appears that raw materials, required for the manufactures, amounted to 62 per cent. of the whole; natural articles of consumption 21 per cent., and manufactured ditto, 15 per cent. Cotton wool was imported in 1840, for 151 millions of francs, or 14 per cent., and of this value 94 millions were for home consumption. These figures give an increase over 1839, of 67 and 32 per cent. Silk was imported in 1840, for 93 millions of francs, being an increase of 8 millions over 1839, but a decrease of 13 millions as compared with 1838. The exports of cotton wool amounted in 1840 to 36 millions, being 21 millions more than in 1839; and of cotton cloth and goods, to 149 millions, being 30 millions more than in 1839. The exports of silk (raw), in 1840, were 51 millions, or one million less than in 1839; and of silk stuffs and goods 192 millions, or 11 millions less than in 1839. The total import and export trade of France with England and the United States, amounted in actual value (in 1840) to—

	Imports.	Exports.
England	109,682,793 francs.	160,203,627 francs.
United States ..	175,829,329 francs.	136,119,771 francs.

Out of these amounts, however, only a certain part of the exports belong to French produce and French manufactures, properly so called, and only a certain portion of the imports were destined for consumption in France. The above returns are those of the general commerce of France. The imports and exports for the special commerce of France were as follows:—

	Imports.	Exports.
England	73,973,576 francs.	105,924,791 francs.
United States ..	117,969,688 francs.	80,752,526 francs.

Hence, it appears that in 1840 France imported from England, for her own consumption, nearly 44 millions of francs worth less than from the United States; and that she exported of her own produce and manufactures to England 25 millions of francs worth more than to the United States. The subjoined curious calculation of the quantity of silk consumed annually in Lyons, is extracted from a local paper for 1841. It appears that this quantity amounts to one million of kilogrammes. Now it takes 4 cocoons to make 1 gramme of spun silk; and therefore 4,000 millions of cocoons are used annually in that city. The average length of the silk given by one cocoon, is 500 metres. Hence the whole length of the silk used annually in Lyons, equals nearly 2,000,000,000 metres—14 times the distance of the earth from the sun—5,494 times the distance of the earth from the moon—52,505 times the circumference of the earth at the equator;—or 100,000 times the circumference of the moon.

Mr. G. R. PORTER called attention to the large quantity of linen yarn imported into France from Great Britain, in the year 1840, and remarked that this was a branch of our export trade of but recent growth. In the year 1833, it happened to be in Leeds just at the time when the first quantity of linen

yarn was about to be sent to France, and the cause of its being sent at that time was on account of the improvement called "wet spinning" having been recently brought into operation. From 1833 to the present time, the quantity of linen yarn exported from this country to France had rapidly increased. It appeared also, by the increased imports of cotton yarn, that the cotton manufacture was making rapid strides in France.

Dr. ASHTON read a paper on Vital Statistics, especially with relation to the influence of the atmosphere on mortality. The paper was medical rather than statistical, and principally related to the unhealthy effects of vitiated air in producing pulmonary complaints.

Mr. WOOLCOMBE read a paper on the Statistics of Plymouth, in continuation of that which had been read at a former Meeting of the Association (*Athen.* No. 719). As this is designed for speedy publication, and will form part of a history of the past and present condition of Plymouth, it is not necessary to report it in detail at present.

Mr. NEZ GARDINER read a brief account of the industrial and training school, which the Manchester Poor Law Guardians are about to erect for the pauper children of the union. A plan and elevation of the building were exhibited in the Section; it is to be erected at Swinton, and will accommodate 1,500 children. Some remarks were added on the importance of combining industrial with literary education, and on the evils which arose from allowing the children to form part of the same community with the aged paupers.

SECTION G.—MECHANICAL SCIENCE. MONDAY.

Mr. NASMYTH brought forward several specimens to illustrate the remarks which he intended to make in further illustration of his observations on Friday. From late accidents, arising from breaking axles, the public were alive to the subject, and it was desirable that the question should be examined. In locomotive engines the axle was the chief point of danger; and it was therefore important, both as a scientific and practical question, to determine the nature and habit of iron when placed under the circumstances of a locomotive axle. Experiment was the only way to discover this, and he would have wished to place iron under exactly similar circumstances; but the short time intervening since Friday, had rendered it impossible to do so. One opinion on Friday was that the alternate strains in opposite directions, which the axles were exposed to, rendered the iron brittle, from the sliding of the particles over each other. To illustrate this, Mr. Nasmyth took a piece of iron wire and bent it back and forward, it broke in six bends. He had suggested annealing as a remedy for this defect: in proof whereof, he took a piece of annealed wire, which bore eighteen bends, showing an improvement of three to one in favour of annealing. He should therefore advise railway companies to include in their specification, that axles should be annealed; he did not like the custom of oppressing engineers with useless minutiae in specifications, but this was so useful and so cheap, that he considered it ought to be insisted on. To exhibit on a larger scale the effect produced on iron in our workshops, he showed a specimen of iron as it came from the merchant: being nicked with a chisel, it broke in four blows with a sledge, at the temperature of 60 degrees, with a crystalline fracture; by raising the temperature 40 degrees higher, it bore twenty blows, and broke with the fibrous or ligneous fracture; so that the quality of iron was not the only circumstance to be considered as influencing the fracture. I noticed also, said Mr. Nasmyth, on Friday, the injurious effect of cold swaging, as causing a change in the nature and fracture of the iron; and here let us take the practical workshop view of the case, and not run after the *ignis fatuus* of electricity or galvanism, but consider the practical effects. Swaging was necessary in many cases, for instance, when an axle had collars welded on, these could not be finished with the hammer, and certain tools called swages were used, from the action of which great condensation of the iron took place, and a beautiful polish was given to the surface, with what injurious effect he would show by the next specimen, which had been heated red hot, and then swaged till cold; it broke at one blow

without nicking, and the fracture was very close and beautiful, like steel. This showed the fallacy of considering close fine grain a good test of excellence in wrought iron; but moderate swaging was often necessary, and not injurious, unless where an over regard to finish carried it to excess. To prove that annealing restored the toughness and fibrous texture, a portion of the last bar was heated, and cold-swaged till cold as before, then heated dull red, and left to cool gradually; it bore 105 blows without breaking, and at last was rather torn asunder than broken, as was shown by the specimen; this proved that the fibrous structure was restored by annealing, and he therefore thought it should be insisted on in specifications. The effect of heating to welding-heat was very injurious, unless the iron was subsequently hammered to close the texture; a piece of the same iron heated to welding, and left to cool, broke without nicking, in one blow, showing very large crystals, especially in the centre. The effect of nicking was also very singular. The strength of iron was generally stated to be equal to its sectional area; but a nick not removing $\frac{1}{100}$ of the area took away $\frac{1}{10}$ of the strength. Mr. NASMYTH broke a piece of nicked, or rather scratched, wire, to illustrate this point. These, and similar things, did not prove that science and practice were at issue; but, as Halley reached the great accuracy of his prediction of the return of his comet by taking into account the disturbing forces of Jupiter and Saturn, and the other planets amongst which the body had to pass, so scientific men should seek in the workshops correctional formulae, by learning there the practical occurrences which would elucidate their theories, and he hoped that these specimens might be of some use.

Prof. WILLIS was aware that many subjects of a purely physical nature could only be explained by practical research; and one great advantage of the British Association was, that it brought scientific and practical men together for this purpose.—Mr. FAIRBAIRN was of opinion, that the two chief causes of breaking axles seemed to be bending and percussion, changing the fibrous into the crystalline structure; this last was the effect of cold swaging, and he hoped that his friend Mr. Hodgkinson would undertake a series of experiments on this very interesting subject. By nicking a bar the extended fibres were cut, which supported more of the weight than the compressed.—Mr. WORTHINGTON thought the additional friction in steps, given by annealing, would counterbalance the advantage gained in strength, as encasing (the very opposite operation) was used to diminish friction, by giving a glassy hardness to the surface, the annealed axles would be laid aside after a few trips, from the friction: he would wish, as a security for life, that the springs should be made as long as possible, to diminish the effect of concussion.—A MEMBER showed specimens of pins which had broken in machinery. They appeared very crystalline in fracture; the bar from which they had been made was fibrous and tough: showed also specimens of tender axles broken on the Sheffield and Rotherham railway. Tender axles most frequently broke from the action of the brakes on the wheels; crystals larger in the centre of the axles than at the ends.—Mr. MALLET was quite at issue with the French committee on the very uncomfortable Report which they had made so authoritatively; he believed that the alternate strains, as long as they were within the limit of elasticity, did not injure the texture of the iron. Wire might be bent backward and forward to infinity, if we kept within this limit. The effect of nicking depended on a change of crystalline structure; that the effect of the nick in determining fracture, was according to the sharpness of the chisel, and the direction; a nick sloping, according to the natural direction of the fibre, was not so efficacious; a molecular change was effected by this cutting across the fibres: we, in fact, established a plane of cleavage in the iron; this took place in glass, when scratched with a diamond, although glass, from passing through the intermediate viscous state, did not crystallize so definitely as iron, which crystallizes *per saltum*. Iron, polished and placed in such a situation as just not to corrode, if scratched, immediately began to corrode; and iodide of mercury presented a curious example of entire disintegration from a slight scratch. Crystallization takes place in the direction of motion; in rolled iron the motion was in the direction of the length of the

bar or plate, and percussion, in a direction perpendicular to that, had the effect of breaking up these laminae or fibres of crystals, into their original molecular arrangement; and this effect was proportionate to the temperature caused, and extent of motion imparted. But he believed, that to effect this molecular alteration required more violence than was to be expected in any ordinary railway travelling, or, indeed, any circumstance of machinery in perpetual work. The chief danger was to be feared where any cutting perpendicular to the direction of the fibre took place, as, for instance, shafts, with square collars, would break at these collars, while a little rounding out preserved them. That rotation of iron induced magnetism, he was aware, but he did not believe that either rotation or vibration would affect iron, which was sound when first applied. If this theory were correct, the engineer should discard wrought iron entirely; no engine was safe, no suspension bridge should be trusted.—Sir J. ROBINSON considered that injuries did arise from vibration and alternate bending; he instanced tongues of musical instruments, and the effects of bending pure tin, which cracked and broke when very slightly bent in opposite directions.—Mr. Mallet believed those tongues to be alloyed, and he found that alloys altered their crystalline nature from mere lying by, as tough brass became brittle, &c., which did not happen in simple metals.—Mr. NASMYTH showed that the effect of hammering bars was actually to make them hollow; every stroke had a tendency to make the bar an ellipse, and the intersection of all their axes was apt to be a hole, from the sliding of the laminae over each other.

Mr. FAIRBAIRN read his Report 'On Experiments on the Transverse Strength of hot and cold blast Iron.'—The bars, as described in the former Reports, were supported by standards, 4 feet 6 inches apart, and were loaded with different weights; they were occasionally carefully examined, and showed a very slight progressive deflection. He had no doubt that they would ultimately break, but the progress was very slow. He read a table showing the weights laid on, and the deflections of each bar.

Mr. HARTOPP said, that Mr. Fairbairn's former experiments on hot and cold blast iron, had created a false impression with regard to the strength of hot blast iron. Mr. Fairbairn had found very little difference between the hot and cold blast; but his experiments, made with great accuracy, and in which the weights were laid on with great care, were of little practical advantage, as these were not the circumstances under which iron was tested in practice: there percussion, violent and sudden impact, should be expected, and here lay the great deficiency of hot blast iron. Even in Mr. Fairbairn's experiments, Oldberry, No. 2, cold blast, bore twice the percussion of Oldberry hot blast; and Milton hot blast was only half the strength of Elsiear cold blast, made of the same ore and smelted with the same coal. Experiments had been made in Yorkshire with great care; the results being, Low Moor cold blast bar with great care; three inches diameter, broke with 6 blows, ditto Scrap, 3 blows, ditto hot blast, 1 blow; again, Low Moor cold blast 18 blows, Bierly ditto, 18, hot blast of as good materials, 3 blows; again, Elsiear cold blast 21 blows, Milton hot blast $1\frac{1}{2}$ blow; therefore, in iron for axles this difference of at least $\frac{2}{3}$ of the strength was very important. As to scrap iron it bore too high a character. Scrap, made on the old plan, was all charcoal iron, but the modern scrap iron was very inferior, being 32s. 6d. per ton cheaper, so that ironmasters put off as much of this cheap material as possible. Hot blast iron was rejected now for water pipes, &c. and even for cannon balls; and, in fine, he had been told by very eminent marine engine makers, that where any percussion took place, hot blast cast iron was only half the strength, and wrought iron only one-sixth the strength of cold blast.—Mr. Fairbairn explained, that he had found great difficulty in obtaining specimens from the different ironmasters, who would of course send, when possible, the best specimens, but every care had been taken to insure accuracy in the experiments.—Mr. HODGKINSON said, that the average strength of hot blast had been $\frac{1}{10}$ weaker than the cold, but the inferiority was chiefly in the softer irons; as the hardness increased the two kinds approached to equality, and in the hardest irons the hot blast was the best. He thought his experiments, made without any interest on either

side, and with the greatest care, were more to be depended on than experiments made by those who had an interest in the result.—Prof. VIGNOLES explained, that the question of hot and cold blast had nothing to say to the late contract for cannon balls.

Mr. HODGKINSON then explained his apparatus for trying the strength of materials. He brought his apparatus forward as he had made many experiments; and he was desirous to render them as trustworthy as possible, by convincing the members that every care had been taken to insure accuracy. Other experiments had been rendered unworthy of reliance, from injudicious methods of affixing the testing apparatus—as those of Rennie and Capt. Brown on iron; Girard's experiments, &c. In crushing specimens, it was necessary that both ends should be well bedded, and the pressure transmitted through the axis. To this, other experimenters had not always attended, and by using the pressure of bores directly on the substance to be crushed, they introduced the different errors arising from the pressure being oblique, transmitted through the side, or being exerted on mere points, instead of equably exerting its force over the entire top surface: to obviate these objections, he had devised apparatus by which all these errors were avoided. Mr. Hodgkinson explained the crushing apparatus by drawings, &c. In experiments on tearing asunder, he had also taken great care, by means of apparatus, which he exhibited and explained, that the strain should be through the axis, and otherwise free from causes of error. Mr. Hodgkinson explained his experiments on torsion, and illustrated his observations throughout by many models and specimens of the substances on which the experiments had been made.

Prof. MOSELEY asked whether, in the experiments on beams, care had been taken to obviate the effects of the friction of the beams on the supports, as this would affect the direction of pressure, altering it from vertical to inclined, and the neutral line only passed through the centre of gravity of the beam when the pressure was vertical: also if care had been taken in laying on the weights, as a weight suddenly laid on produced mathematically twice the effect in deflection. Theoretically, the weight should be increased by small additions, even as grains of sand.—Mr. HODGKINSON said he had taken all precautions with regard to the weights; they were added by small portions, and with great care; the beams rested on tolerably smooth cast iron, on which he believed the friction would be of little importance.

Mr. BROCKEDON exhibited specimens of his patent India rubber stoppers for bottles, explaining the late improvements in the construction of the cores on which the India rubber is spread. The present cores, he said, were made of cotton twisted into strands, &c., by means of a machine which he explained by a diagram, the cylindrical rope now consisted of several strands of tightly twisted cotton, lapped with flax thread, and laid together longitudinally, loose fine cotton rovings being placed between them; the entire was then lapped in a cylindrical form with flax thread, attaining by this method the advantages of perfect roundness and firmness; they also gave sufficient hold to the corkscrew, and bore the heating process well. These stoppers would slide on glass when wet, but not when dry (although there was no cohesion in this latter state), so that the bottle, by slightly wetting these stoppers with the liquor which he was bottling could easily insert them; and when this slight film of moisture was dried up, the stopper required considerable force to withdraw it.

Prof. VIGNOLES read a paper 'On the best Form of Rails and the Upper Works of Railways generally.'—He wished to compare the two chief systems of laying down rails, with chairs and without, and to do so he referred to two diagrams:—No. 1, exhibiting the heavy rail and heavy chair used on the South-Eastern Railway, the weight of rail being 80 lb. per yard, and the chair 20 lb.: the rail was fastened in the chair, not with iron, but with a longitudinal plug or key of wood; this mode of laying rails was found to answer very well.—No. 2, was invented by Mr. Evans; it was rolled with a slot or groove running along its under side; this slot, after coming from the first rollers, was rendered dovetailed by compressing the bottom edges of the rail towards each other, thereby narrowing the slot at the bottom. These rails required no chairs, having continuous

bearing fastened into the timber the under as they By this fastening had been found they flow off, screws yielding more secure fibre of was, the nuts remedied the trans at least the diffi he lesse ft unc circula in balla per yar given in the east its top that wh or even advanta sleepers Dublin the gra more in all been and the years re now 50 standing old 42 consequ deeper the rail transve Mr. Union ing. 1 the squ on the little h work. Manch the wh concei contin near th as the surly was re surface a ladd been to to whi transve

A R

In ad have the 3000, 4000, 5000, 6000, 7000, 8000, 9000, 10000, 11000, 12000, 13000, 14000, 15000, 16000, 17000, 18000, 19000, 20000, 21000, 22000, 23000, 24000, 25000, 26000, 27000, 28000, 29000, 30000, 31000, 32000, 33000, 34000, 35000, 36000, 37000, 38000, 39000, 40000, 41000, 42000, 43000, 44000, 45000, 46000, 47000, 48000, 49000, 50000, 51000, 52000, 53000, 54000, 55000, 56000, 57000, 58000, 59000, 60000, 61000, 62000, 63000, 64000, 65000, 66000, 67000, 68000, 69000, 70000, 71000, 72000, 73000, 74000, 75000, 76000, 77000, 78000, 79000, 80000, 81000, 82000, 83000, 84000, 85000, 86000, 87000, 88000, 89000, 90000, 91000, 92000, 93000, 94000, 95000, 96000, 97000, 98000, 99000, 100000, 101000, 102000, 103000, 104000, 105000, 106000, 107000, 108000, 109000, 110000, 111000, 112000, 113000, 114000, 115000, 116000, 117000, 118000, 119000, 120000, 121000, 122000, 123000, 124000, 125000, 126000, 127000, 128000, 129000, 130000, 131000, 132000, 133000, 134000, 135000, 136000, 137000, 138000, 139000, 140000, 141000, 142000, 143000, 144000, 145000, 146000, 147000, 148000, 149000, 150000, 151000, 152000, 153000, 154000, 155000, 156000, 157000, 158000, 159000, 160000, 161000, 162000, 163000, 164000, 165000, 166000, 167000, 168000, 169000, 170000, 171000, 172000, 173000, 174000, 175000, 176000, 177000, 178000, 179000, 180000, 181000, 182000, 183000, 184000, 185000, 186000, 187000, 188000, 189000, 190000, 191000, 192000, 193000, 194000, 195000, 196000, 197000, 198000, 199000, 200000, 201000, 202000, 203000, 204000, 205000, 206000, 207000, 208000, 209000, 210000, 211000, 212000, 213000, 214000, 215000, 216000, 217000, 218000, 219000, 220000, 221000, 222000, 223000, 224000, 225000, 226000, 227000, 228000, 229000, 230000, 231000, 232000, 233000, 234000, 235000, 236000, 237000, 238000, 239000, 240000, 241000, 242000, 243000, 244000, 245000, 246000, 247000, 248000, 249000, 250000, 251000, 252000, 253000, 254000, 255000, 256000, 257000, 258000, 259000, 260000, 261000, 262000, 263000, 264000, 265000, 266000, 267000, 268000, 269000, 270000, 271000, 272000, 273000, 274000, 275000, 276000, 277000, 278000, 279000, 280000, 281000, 282000, 283000, 284000, 285000, 286000, 287000, 288000, 289000, 290000, 291000, 292000, 293000, 294000, 295000, 296000, 297000, 298000, 299000, 300000, 301000, 302000, 303000, 304000, 305000, 306000, 307000, 308000, 309000, 310000, 311000, 312000, 313000, 314000, 315000, 316000, 317000, 318000, 319000, 320000, 321000, 322000, 323000, 324000, 325000, 326000, 327000, 328000, 329000, 330000, 331000, 332000, 333000, 334000, 335000, 336000, 337000, 338000, 339000, 340000, 341000, 342000, 343000, 344000, 345000, 346000, 347000, 348000, 349000, 350000, 351000, 352000, 353000, 354000, 355000, 356000, 357000, 358000, 359000, 360000, 361000, 362000, 363000, 364000, 365000, 366000, 367000, 368000, 369000, 370000, 371000, 372000, 373000, 374000, 375000, 376000, 377000, 378000, 379000, 380000, 381000, 382000, 383000, 384000, 385000, 386000, 387000, 388000, 389000, 390000, 391000, 392000, 393000, 394000, 395000, 396000, 397000, 398000, 399000, 400000, 401000, 402000, 403000, 404000, 405000, 406000, 407000, 408000, 409000, 410000, 411000, 412000, 413000, 414000, 415000, 416000, 417000, 418000, 419000, 420000, 421000, 422000, 423000, 424000, 425000, 426000, 427000, 428000, 429000, 430000, 431000, 432000, 433000, 434000, 435000, 436000, 437000, 438000, 439000, 440000, 441000, 442000, 443000, 444000, 445000, 446000, 447000, 448000, 449000, 450000, 451000, 452000, 453000, 454000, 455000, 456000, 457000, 458000, 459000, 460000, 461000, 462000, 463000, 464000, 465000, 466000, 467000, 468000, 469000, 470000, 471000, 472000, 473000, 474000, 475000, 476000, 477000, 478000, 479000, 480000, 481000, 482000, 483000, 484000, 485000, 486000, 487000, 488000, 489000, 490000, 491000, 492000, 493000, 494000, 495000, 496000, 497000, 498000, 499000, 500000, 501000, 502000, 503000, 504000, 505000, 506000, 507000, 508000, 509000, 510000, 511000, 512000, 513000, 514000, 515000, 516000, 517000, 518000, 519000, 520000, 521000, 522000, 523000, 524000, 525000, 526000, 527000, 528000, 529000, 530000, 531000, 532000, 533000, 534000, 535000, 536000, 537000, 538000, 539000, 540000, 541000, 542000, 543000, 544000, 545000, 546000, 547000, 548000, 549000, 550000, 551000, 552000, 553000, 554000, 555000, 556000, 557000, 558000, 559000, 560000, 561000, 562000, 563000, 564000, 565000, 566000, 567000, 568000, 569000, 570000, 571000, 572000, 573000, 574000, 575000, 576000, 577000, 578000, 579000, 580000, 581000, 582000, 583000, 584000, 585000, 586000, 587000, 588000, 589000, 590000, 591000, 592000, 593000, 594000, 595000, 596000, 597000, 598000, 599000, 600000, 601000, 602000, 603000, 604000, 605000, 606000, 607000, 608000, 609000, 610000, 611000, 612000, 613000, 614000, 615000, 616000, 617000, 618000, 619000, 620000, 621000, 622000, 623000, 624000, 625000, 626000, 627000, 628000, 629000, 630000, 631000, 632000, 633000, 634000, 635000, 636000, 637000, 638000, 639000, 640000, 641000, 642000, 643000, 644000, 645000, 646000, 647000, 648000, 649000, 650000, 651000, 652000, 653000, 654000, 655000, 656000, 657000, 658000, 659000, 660000, 661000, 662000, 663000, 664000, 665000, 666000, 667000, 668000, 669000, 670000, 671000, 672000, 673000, 674000, 675000, 676000, 677000, 678000, 679000, 680000, 681000, 682000, 683000, 684000, 685000, 686000, 687000, 688000, 689000, 690000, 691000, 692000, 693000, 694000, 695000, 696000, 697000, 698000, 699000, 700000, 701000, 702000, 703000, 704000, 705000, 706000, 707000, 708000, 709000, 710000, 711000, 712000, 713000, 714000, 715000, 716000, 717000, 718000, 719000, 720000, 721000, 722000, 723000, 724000, 725000, 726000, 727000, 728000, 729000, 730000, 731000, 732000, 733000, 734000, 735000, 736000, 737000, 738000, 739000, 740000, 741000, 742000, 743000, 744000, 745000, 746000, 747000, 748000, 749000, 750000, 751000, 752000, 753000, 754000, 755000, 756000, 757000, 758000, 759000, 760000, 761000, 762000, 763000, 764000, 765000, 766000, 767000, 768000, 769000, 770000, 771000, 772000, 773000, 774000, 775000, 776000, 777000, 778000, 779000, 780000, 781000, 782000, 783000, 784000, 785000, 786000, 787000, 788000, 789000, 790000, 791000, 792000, 793000, 794000, 795000, 796000, 797000, 798000, 799000, 800000, 801000, 802000, 803000, 804000, 805000, 806000, 807000, 808000, 809000, 810000, 811000, 812000, 813000, 814000, 815000, 816000, 817000, 818000, 819000, 820000, 821000, 822000, 823000, 824000, 825000, 826000, 827000, 828000, 829000, 830000, 831000, 832000, 833000, 834000, 835000, 836000, 837000, 838000, 839000, 840000, 841000, 842000, 843000, 844000, 845000, 846000, 847000, 848000, 849000, 850000, 851000, 852000, 853000, 854000, 855000, 856000, 857000, 858000, 859000, 860000, 861000, 862000, 863000, 864000, 865000, 866000, 867000, 868000, 869000, 870000, 871000, 872000, 873000, 874000, 875000, 876000, 877000, 878000, 879000, 880000, 881000, 882000, 883000, 884000, 885000, 886000, 887000, 888000, 889000, 890000, 891000, 892000, 893000, 894000, 895000, 896000, 897000, 898000, 899000, 900000, 901000, 902000, 903000, 904000, 905000, 906000, 907000, 908000, 909000, 910000, 911000, 912000, 913000, 914000, 915000, 916000, 917000, 918000, 919000, 920000, 921000, 922000, 923000, 924000, 925000, 926000, 927000, 928000, 929000, 930000, 931000, 932000, 933000, 934000, 935000, 936000, 937000, 938000, 939000, 940000, 941000, 942000, 943000, 944000, 945000, 946000, 947000, 948000, 949000, 950000, 951000, 952000, 953000, 954000, 955000, 956000, 957000, 958000, 959000, 960000, 961000, 962000, 963000, 964000, 965000, 966000, 967000, 968000, 969000, 970000, 971000, 972000, 973000, 974000, 975000, 976000, 977000, 978000, 979000, 980000, 981000, 982000, 983000, 984000, 985000, 986000, 987000, 988000, 989000, 990000, 991000, 992000, 993000, 994000, 995000, 996000, 997000, 998000, 999000, 1000000, 1001000, 1002000, 1003000, 1004000, 1005000, 1006000, 1007000, 1008000, 1009000, 1010000, 1011000, 1012000, 1013000, 1014000, 1015000, 1016000, 1017000, 1018000, 1019000, 1020000, 1021000, 1022000, 1023000, 1024000, 1025000, 1026000, 1027000, 1028000, 1029000, 1030000, 1031000, 1032000, 1033000, 1034000, 1035000, 1036000, 1037000, 1038000, 1039000, 1040000, 1041000, 1042000, 1043000, 1044000, 1045000, 1046000, 1047000, 1048000, 1049000, 1050000, 1051000, 1052000, 1053000, 1054000, 1055000, 1056000, 1057000, 1058000, 1059000, 1060000, 1061000, 1062000, 1063000, 1064000, 1065000, 1066000, 1067000, 1068000, 1069000, 1070000, 1071000, 1072000, 1073000, 1074000, 1075000, 1076000, 1077000, 1078000, 1079000, 1080000, 1081000, 1082000, 1083000, 1084000, 1085000, 1086000, 1087000, 1088000, 1089000, 109000

re to be de-
who had
explained,
nothing to

s apparatus
He brought
many experi-
as trust-
members that
racy. Other
of reliance,
resting appa-
own on iron;
specimens,
well bedded,
the axis. To
ys attended,
ctly on the
the different
lique, trans-
ed on mere-
over the
jections, be-
errors were
the crushing
ents on trans-
er, by means
plained, that
and otherwise
skinson ex-
illustrated
models and
experiments

experiments
the effects
ports, as this
er, it from
only passed
when the
been taken
enly laid on
ct in defec-
increased
sand.—Mr.
Auctions with
ed by small
rested on
believed the

of his patent
ing the late
the cores on
recent cores,
strands, &c.,
ed by a dia-
nd of several
with flax
lose fin-
; the en-
um with flax
advantages of
o gave suffi-
the heating
side on glass
there was no
the bottle, by
liquor which
; and when
the stopper

the best Form
s generally,
chief systems
without, and
—No. 1, ex-
used on the
being 50lb.
was fastened
Longitudinal
rails was
as invented
to grove
after coming
vetailed by
wards each
the bottom.
continuous

bearing on longitudinal wooden sleepers, being fastened down by bolts, with dovetailed heads slid into the groove, and which, passing through holes in the timbers, were secured with a nut and washer at the under side. He had suggested this improvement, as they had been previously fastened with a cotter. By this method all the difficulties attendant on fastening down the chairs were removed. The chairs had been fastened with bolts and screws, but he had found that on the slightest loosening the bolt-heads flew off, from the continual percussions, and the screws very soon allowed vertical play from the yielding of the fibre of the wood. By Evans's rail we secured the rail without the intervention of the fibre of the wood. One inconvenience attending it was, the trouble of scraping away the earth to tighten the nuts when necessary; but this might be partially remedied by placing the bolts as often as possible in the transverse gutters for draining the road, by which at least one-half the bolts might be easily got at; and the difficulty of tightening the remaining bolts would be lessened, if, as he recommended, the timbers were left uncovered. He preferred thus giving a free circulation of air, and disliking burying the sleepers in ballast. The weight of Evans's rail was only 45 lb. per yard, although quite strong enough, while the other was 100 lb. The bivel in No. 2 rail might be given in the wood-bearing; in No. 1 it was caused by the casting of the chair; this latter rail, from having its top and bottom sides alike, had this advantage, that when it began to wear it might be turned round, or even turned upside down, which was a very great advantage. He had for many years advocated wooden sleepers *versus* stone, from his experience on the Dublin and Kingstown Railway, where he found that the granite sleepers, the more massive they were the more injurious to the rails and carriages. These had all been taken up, and wooden sleepers laid down, and the saving in expense of repairs would in a few years reimburse the outlay. The railway only costs now 50l. per mile per annum for repairs, notwithstanding the great traffic over it. The rails were the old 42 lb. rails, and, nevertheless, were still used, in consequence of the advantage gained by the wooden sleepers. He recommended keeping Evans's rail to the gauge by light iron rods passed through holes in the rails, and secured by nuts: he thought these transverse ties should never be used as supports.

Mr. BUCKE remarked, that the rails on the North Union had already been so worn as to require turning. The section of Evans's rails was bad, as, from the squareness of the top, the wheel would not bear on the centre of the rail. He had used these rails a little himself, and had no objection to them for light work. He had remedied the form of rail on the Manchester and Birmingham Railway, so as to give the wheels a bearing on the centre of the rail. He conceived a great disadvantage in the longitudinal continuous bearing was, that the foundation was so near the surface; the stability of the foundation was as the square of the depth, and therefore the necessarily narrow foundation of the continuous bearing was rendered still weaker by its proximity to the surface, and the plan of laying down a railway "like a ladder on the ground," had failed where it had been tried.—Prof. Vignoles considered that the failure to which Mr. Bucke alluded, was from making the transverse ties too strong.

ARGUS LIFE ASSURANCE COMPANY,

30, Throgmorton-street, Bank.
Empowered by special Act of Parliament.
Thomas Farncroft, Esq., Alderman, Chairman.
William Leaf, Esq., Deputy-Chairman.
Consulting Actuary—Professor Hall, of King's College.

Low Rates of Premium.
In addition to the subscribed capital of 300,000l., the assured have the security of the Company's income of upwards of 300,000l. per annum, yearly increasing, and an accumulating Assurance Fund invested in Government and other available securities, of considerably larger amount than the estimated liabilities of the Company.

The Rates of Premium are reduced to the lowest scale compatible with the safety of the Assured and the stability of the Company, thereby, in effect, giving to every policy-holder an immediate and certain bonus without risk, in lieu of the deferred and frequently delusive prospect of a periodical division of profits.

Annual Premium to Assure £100.
Age. For Five Years. For Seven Years. Term of Life.
25 £1 0 3 £1 0 7 £1 15 1
30 1 10 7 1 2 1 1 10 10
35 1 9 7 1 10 9 3 4 7
40 1 16 11 1 19 0 3 19 3
45 3 10 5 3 15 5 0 0 10

In Assurances for advances of money, as security for debts, or as provision for a family, when the least present outlay is desirable, the varied and comprehensive Tables of the Argus will be found to be particularly favourable to the assured.

A Board of Directors, with the Medical Officers, attend daily.

EDWARD BATES, Resident Director.

A Liberal Commission to Solicitors and Agents.

UNION BANK OF AUSTRALIA.—London

Office, 38, Old Broad-street.—Capital paid up 500,000l.
Directors—Robert Brooks, Esq., Benjamin E. Lloyd, Esq.,
John William Buckle, Esq., Charles Edward Mangles, Esq.,
Robert Carter, Esq., T. Smith, Esq., Liverpool
James John Cummins, Esq., Thomas Hoyle Smith, Esq.,
R. Gardner, Esq., Manchester James Rutledge Todd, Esq.,
John Gore, Esq., Thomas Young, Esq.,

George Carr Glyn, Esq., Trustees.
John Gore, Esq., James John Cummins, Esq.

Bankers—Messrs. Glyn, Hallifax, Mills & Co.
Secretary—Samuel Jackson, Esq.

Solicitors—Messrs. Bartlett & Reddome.
Colonial Inspector—John Cunningham MacLaren, Esq.

The Directors of this Bank grant letters of credit, or bills at 30 days' sight, on their branches at Sydney, Bathurst, Hobart Town, Launceston, Melbourne, Port Phillip, and Wellington, without charge, and on Nelson, New Zealand, at a charge of 2 per cent. They also negotiate approved bills on the Colonies at 30, 60, and 90 days' sight, the terms for which may be obtained at their Office. Bills for collection transmitted at the usual charge. By order of the Board, SAMUEL JACKSON, Secy.

BRITANNIA LIFE ASSURANCE COMPANY, 1, Princes-street, Bank, London.

This Institution is empowered by a special Act of Parliament, 4 Vict. cap. 18., and is so constituted as to afford the benefits of Life Assurance, in their fullest extent, to Policy-Holders, and to present greater facilities and accommodation than can be obtained in other Offices. The decided superiority of its plan, and its claim to public preference and support, have been proved, incontestably, by its extraordinary and unprecedented success. Extract from Increasing Revenue, Premium, for an Assurance of 100l. for the Whole Term of Life.

Age.	1st Five years.	2nd Five years.	3rd Five years.	4th Five years.	5th Five years.	Remainder of life.
20	£1 4 4	£2 10 11	£1 10 11	£1 10 11	£2 3 8	£2 3 8
30	1 6 4	1 12 2	1 19 1	2 4 4	2 17 6	2 17 6
40	1 16 1	2 4 4	2 14 6	3 7 3	4 3 4	4 3 4
50	2 16 7	3 5 5	3 5 5	3 13 7	3 13 7	3 13 7

PETER MORRISON, Resident Director.
A Liberal Commission allowed to Solicitors and Agents.

NATIONAL LOAN FUND LIFE ASSURANCE SOCIETY, for granting Life Assurances, Deferred Annuities, &c. &c. 26, Cornhill.—Capital, 500,000l.—Empowered by special Act of Parliament.

Directors—T. LAURENCE MURRAY, Esq., Chairman.
John Elliottson, M.D. F.R.S., John Rawson, Esq.,
John Griffith Frith, Esq., John Riddle Stodart, Esq.,
H. G. Gorn, Esq., T. G. Gorn, Esq.,
George L. L. Esq., Joseph Thompson, Esq.,
Auditors—Prof. Wheatstone, F.R.S.; Prof. Graves, A.M. F.R.S.
Actuary—W. S. D. Woolhouse, Esq., F.R.A.S.
Physician—J. Elliottson, M.D. F.R.S., J. S. Symes, Esq.,
Solicitors—Messrs. Sweet, Sutton, Ewens and Osmannay.
Bankers—Messrs. Glyn, Hallifax, Mills & Co.

The most rational motives to a Life Assurance are found in the plan adopted by this Society, viz. joined to a secure provision at death for inheritors of the assured, the Society affords succour to the assured himself (proportioned to previous payments) in the event of unforeseen reverses. Annual division of profits.

UNITED KINGDOM LIFE ASSURANCE COMPANY, 8, Waterloo-place, Pall Mall, London.

Established by Act of Parliament in 1834.
Division of Profits among the Assured.

This Company, established by Act of Parliament, affords the most perfect security in an ample paid-up Capital, and in the great success which has attended it since its commencement in 1834, in the Company declared an addition to the Shareholders of one-half of their Stock, and also added 22 per cent. per annum, from the date of the policies to those parties who had insured with profits. The premiums, nevertheless, are on the most moderate scale, and only a moiety need be paid for the first five years, where the Insurance is for life.

The amount of bonus added to policies since the commencement of the Company in March 1834, to the 31st Dec. 1840, is as follows:

Sum Assured.	Time Assured.	Sum added to Policy.
£1000	6 years 10 months	£136 13 4
1000	4 years	89 0 0
1000	1 year	20 0 0

Every information will be afforded on application to the Resident Directors, Edward Boyd, Esq., and Lennox Boyd, Esq., of No. 8, Waterloo-place, Pall Mall, London.

Frederick Hale Thomson, Esq., Surgeon, 48, Berners-street, attends at the Office daily, about half-past Two o'clock.

WESTERN LIFE ASSURANCE SOCIETY,

Office, 40, Parliament-street, Westminster.
Capital 500,000l.—10,000 Shares of £50 each Share.
This Society is established for the Assurance of Lives, upon principles combining economy with perfect security.

Directors.
Henry Edgeworth Bicknell, Esq., John Arcott Lethbridge, Esq.,
William Cabell, Esq., Edmund Lucas, Esq.,
Thomas Somers Cocks, jun. Esq., George Kennet Pollock, Esq.,
George Henry Drew, Esq., James List Seager, Esq.,
William Evans, Esq., John Bosley White, Esq.,
William Freeman, Esq., Joseph Carter Wood, Esq.,
Francis Fuller, Esq., Henry Wrench, Esq.,
James Hunt, Esq.,

Traders—William Whately, Esq., L. C. Humphrey, Esq.;
George Drew, Esq.,

Auditors—Ormus Biddulph, Esq.; John Freeman, Esq.;
John Baily, Esq.;

Consulting Counsel—William Page Wood, Esq.,
Consealing Counsel—Samuel Jay, Esq.,

Physician—William Richard Asham, Esq., M.D., 17, Chester-street, Grosvenor-place.

Surgeons—Alfred Leggett, Esq.; George David Pollock, Esq.

Bankers—Messrs. Cocks, Biddulph & Co., Charing-cross.

Solicitors—Messrs. J. L. Bicknell and J. C. Lethbridge, 25, Abingdon-street, Westminster.

Table of Premiums to assure 100l. for the whole term of life.

Age.	Annual Prem.	Age.	Annual Prem.	Age.	Annual Prem.
20	£1 4 4	30	£2 10 11	40	£3 10 11
25	1 18 11	35	2 19 6	45	5 5 4
30	2 4 4	40	3 13 7	50	6 13 3

The object of this Society is to afford to the Assured all the benefits of Life Assurance, at a great reduction in the rates of Premium. For Example: A person aged 30, with this Society assure his life for 300l. by the annual payment of 11l. 3s. 4d., which in a Society where the Bonus is held out as a main inducement, would cost him 13l. 7s. 4d., or, in other words, for the same annual premium he could at this Office assure very nearly 600l. whereby he derives AN IMMEDIATE AND CERTAIN BONUS OF 100l.

All particulars as to Shares, Loans, Assurances, &c. may be obtained on application to the Secretary; and, if required, forwarded to the Country.

Parties in the Country eligible for undertaking Agencies are requested to apply.

A very liberal Commission allowed to Solicitors and Agents.

EDW. T. RICHARDSON,
Actuary and Secretary.

DISEASED LIVES ASSURED. MEDICAL, INVALID, AND GENERAL LIFE ASSURANCE SOCIETY, 25, Pall Mall.

Sir Henry Hallford, Bart. M.D. G.C.H. F.R.S. F.S.A.
Sir William Barnett, M.D. K.C.H. F.R.S.
Sir Matthew Tierney, Bart. M.D. K.C.H. F.R.S.

With a Board of twelve Directors.
Disseas as well as healthy lives assured at equitable rates.

F. G. P. NELSON, Actuary.

COMPLETION OF THE DICTIONARY OF GREEK AND ROMAN ANTIQUITIES.

Just published, in 1 vol. 8vo. (1100 pages, and nearly 500 Engravings on Wood), price 35s. cloth lettered.

A DICTIONARY OF GREEK AND ROMAN ANTIQUITIES. By VARIOUS WRITERS.

Edited by Dr. WILLIAM SMITH.
"We do not pretend to have examined this Dictionary throughout; but the articles which we have consulted appear to us admirably done: they are terse in style, and pregnant, yet not cumbersomely so, with accurate knowledge; the best and latest authorities are constantly cited. It was a work much wanted, will be invaluable to the young student, and as a book of reference (it is a single, handsome double-columned 8vo.), will be most acceptable on the library-table of every scholar."

Quarterly Review, June, 1842.
Printed for Taylor & Walton, 28, Upper Gower-street.

MR. GARSTON'S TRAVELS IN GREECE.

Now ready, in 2 vols. 8vo. with Illustrations.

GREECE REVISITED, AND SKETCHES IN LOWER EGYPT.

With Thirty-six Hours of a Campaign in Greece.
By EDGAR GARSTON, Esq.

"No knight of the R.M. Greek order of the Saviour, &c. the one before us. Full of animation, of acute observation, of able powers of description, and all employed on a subject worthy of their best exercise, 'Greece Revisited' will be most extensively read. He who has heard his life in her camps could not be a cold narrator; and the author has proved himself as fair an advocate for her with his pen, as he had before been an able champion with the sword."—Metropolitan.

Saunders & Oiley, Publishers, Conduit-street, Agents for Ireland, J. Cumming, Dublin; for Scotland, Bell & Bradfute, Edinburgh.

WORKS BY THE REV. JAMES SLADE.

4 vols. 12mo. (sold separately) price 6s. each.

PLAIN PAROCHIAL SERMONS, preached in the Parish Church of Bolton-le-Moors.

By the Rev. JAMES SLADE, M.A.,
Vicar of Bolton, and Prebendary of Chester.

Also, by the same Author,
1. Family Readings from the Gospel of St. John, adapted also to the use of Teachers in Sunday Schools. 12mo. 3s. 6d.

2. A System of Family Prayer, for each Morning and Evening of the Week. 12mo. 2s. 6d.

3. Twenty-one Prayers, composed from the Psalms, for the Sick and Afflicted. To which are added, various other Forms of Prayer for the same purpose. With a few Hints and Directions for the Visitation of the Sick, &c. 12mo. 1s. 6d.

4. Lent Lectures, on various Subjects, chiefly Doctrinal; in which are added, Lectures on the Seven Churches of Asia. 12mo. 5s.

5. Plain remarks on the Four Gospels, for the benefit of uneducated Persons, and adapted to the Use of Schools and Families. 12mo. 3s. 6d.

6. Annotations on the Epistles; being a Continuation of Mr. Easley's Annotations on the Gospels and Acts. 4th edition. 2 vols. 8vo. 15s.

Rivingtons, St. Paul's Churchyard, and Waterloo-place.

MR. MURRAY'S HANDBOOKS FOR TRAVELLERS,

Giving detailed and precise information respecting STEAMERS, PASSPORTS, TABLES OF MONIES, GUIDES, AND SERVANTS;

WITH DIRECTIONS FOR TRAVELLERS, AND HINTS FOR TOURS, &c. &c.

THE FOLLOWING ARE NOW READY.

I. HOLLAND, BELGIUM, PRUSSIA, NORTH GERMANY, and the RHINE to SWITZERLAND.

New Edition, thoroughly revised. Map. Post 8vo. 10s. bound.

II. SOUTHERN GERMANY, BAVARIA, AUSTRIA, TYROL, SALZBURG, STYRIA, AUSTRIAN and BAVARIAN ALPS, the DANUBE, from ULM to the BLACK SEA.

New Edition, thoroughly revised. Map. Post 8vo. 10s. bound.

III. SWITZERLAND, SAVOY, and PIEDMONT.

New Edition, thoroughly revised. Map. Post 8vo. 10s. bound.

IV. DENMARK, NORWAY, SWEDEN, and RUSSIA.

Maps and Plans. Post 8vo. 12s. bound.

V. MALTA, the IONIAN ISLANDS, GREECE, TURKEY, ASIA MINOR, and CONSTANTINOPLE.

Maps. Post 8vo. 12s. bound.

VI. ALSO, JUST READY,

VII. NORTHERN ITALY; the STATES OF SARDINIA, GENOVA, and the RIVIERA, VENICE, LOMBARDY, and TUSCANY.

Map. Post 8vo.

VIII. SOUTHERN ITALY; the PAPAL STATES, ROME, NAPLES, and SICILY.

Map. Post 8vo.

IX. FRANCE; NORMANDY, BRITTANY; the RIVERS LOIRE, SEINE, RHONE, and GARONNE; the FRENCH ALPS, DAUPHINE, PROVENCE, and the PYRENEES.

Map. Post 8vo.

* * * "Mr. Murray's Handbooks" are all bound in red cloth and have his name on the outside.

John Murray, Albemarle-street.

ENCYCLOPÆDIA BRITANNICA.
SEVENTH EDITION. Edited by PROF. NAPIER.
The Work is now completed in 21 volumes etc., and may be had in every variety of binding.
A. & C. Black, Edinburgh; Simpkin, Marshall & Co., Whitaker & Co., and Hamilton, Adams & Co., London.

EDWIN THE FAIR; a Tragedy.
By HENRY TAYLOR, Esq.,
Author of 'Philip Van Artevelde.'
John Murray, Albemarle-street.

In a few days,
NOTES of a TOUR in the DISTRESSED MANUFACTURING DISTRICTS of LANCASHIRE,
in a Series of Letters to his Grace the Archbishop of Dublin.
By W. COOKE TAYLOR, L.L.D., of Trinity College, Dublin,
Author of 'The Natural History of Society,' &c.
Duncan & Malcolm, 37, Paternoster-row.

This day is published, in post 8vo. cloth lettered, with a Map,
THE EXPEDITION INTO AFGHANISTAN:
Notes and Sketches descriptive of the Country, contained in a Personal Narrative during the Campaign. By JAMES ATKINSON, Esq., Superintending Surgeon of the Army of the Indus, Bengal Establishment.
London: Wm. H. Allen & Co., 7, Leadenhall-street.

In 12mo. price 2s. 6d.
THE BOOK OF PROVERBS explained and illustrated.
By the Rev. BENJAMIN ELLIOTT NICHOLS, M.A., of Queen's College, Cambridge, Curate of St. John's, Waltham-st., and Author of a 'Help to the Reading of the Bible,'
Rivingtons, St. Paul's Churchyard, and Waterloo-place.

In small 8vo. price 7s. the 2nd edition of
THE CHURCH of the FATHERS.
By JOHN HENRY NEWMAN, B.D.,
Vicar of St. Mary the Virgin's, Oxford, and Fellow of Oriel Coll.
Rivingtons, St. Paul's Churchyard, and Waterloo-place.

MAURICE on the KINGDOM of CHRIST.
Now ready, in 2 vols. post 8vo. price 12s. 6d., the 2nd edition of
THE KINGDOM of CHRIST; or, Hints to a Quaker, respecting the Principles, Constitution, and Ordinances, of the CATHOLIC CHURCH.
By FREDERIC DENISON MAURICE, M.A.,
Chaplain of Guy's Hospital, and Professor of English Literature and History in King's College.
Rivingtons, St. Paul's Churchyard, and Waterloo-place; and Dutton & Clark, Holborn-hill.

TOM OAKLEIGH ON SHOOTING.
This day, price 6s. with numerous Illustrations on Wood and Steel.
THE SHOOTER'S HAND-BOOK; being the Treatise on Shooting in 'The Rod and the Gun.' By the Author of 'The Oakleigh Shooting Code.'
*** 'The Oakleigh Shooting Code' is now withdrawn from circulation, the present volume embracing all the contents of that work which the Author deemed worthy of preservation, as well as much new matter, the result of his enlarged experience and more matured opinions.

Adapted for Schools, Private Teachers, and Students,
COOLEY'S ELEMENTS of EUCLID, with explanatory Appendix and Exercises. 4s. 6d. bd.
*** 'The best edition of the Elements which has yet appeared'—*Athenæum*—'cannot be easily surpassed.'—*Dublin University Mag.*
COOLEY'S GEOMETRICAL PROPOSITIONS: a Key to the Exercises appended to the Elements. 3s. 6d. bd.
COOLEY'S FIGURES of EUCLID, with Enunciations, 1s. 6d. London: Whittaker & Co.; sold by all Booksellers.

This day is published, price 2s. 6d., neatly bound in cloth, and lettered,
GRAMMAR LESSONS, by a LADY, designed as a Supplement to Mrs. Marcet's well-known and useful Work, called 'Mary's Grammar.'
J. Rodwell, 45, New Bond-street; and Simpkin & Marshall, Stationers-court.

IN USE AT KING'S COLLEGE SCHOOL.
Just published, by Simpkin & Marshall, price 5s. with an Appendix of Scripture Proper Names,
CARR'S CLASSICAL PRONUNCIATION of GREEK and LATIN POETS, established by Citations from the Greek and Latin Poets, Greek Histories, Geographers, &c.
Carr's History and Geography of Greece, with a Series of 3000 Examination Questions, 7s. 6d.
Carr's Manual of Roman Antiquities, 6s. 6d.
Carr's Latin Homonyms, or Dictionary of Latin Words similar in sound but different in sense, 3s.

FOR THE ENGLISH STUDENT.
WORKS by Mr. B. H. SMART:
PRACTICE of ELOCUTION, Fourth Edition, much augmented, 12mo. 5s. cloth.—Shakespearean Readings, an Historical Shakespeare for the family circle, companion volume to the foregoing, 6s.—Accidence and Principles of English Grammar, 4s.—Pronouncing Dictionary, 8vo. 15s.—The Same epitomized, 7s. 6d.—Longmans; Rivingtons; &c.

The Metaphysical Essays; Aids for Reading the Library; as well as the above, at Hookham's, Old Bond-street; and Ottell's, Leadenhall-street.

NEW FRENCH SCHOOL. By M. LEPAGE, Professor of French in London.
Part 1. **L'ÉCHO de PARIS.** 5th edit. price 4s. Being a selection of phrases a person would hear daily if living in France, with a Vocabulary of French words and idioms.
Part 2. **GIFT of FLUENCY in FRENCH CONVERSATION.** A Set of Exercises for the learner of the French Language, calculated to enable him, by means of practice, to express himself fluently on the ordinary topics of life. With Notes. 3s. 6d.

Part 3. **THE LAST STEP to FRENCH;** or, the Principles of French Grammar displayed in a series of short lessons, each of which is followed by questions and exercises, with the verification. 3s. 6d.

The Three Parts bound in one volume, price 10s.
Also, by the same Author, price 3s. 6d. in cloth,
The French Master for the Nursery; or, First Lessons in French.

M. Lepage's dialogues on the sound of French letters and the parts of speech are of first-rate excellence.—*Court Magazine.*
London: Edinham Wilson, 15, Bishopsgate-street Within.

EDUCATION.

WORKS PRINTED FOR
TAYLOR & WALTON,
28, UPPER GOWER-STREET.

ENGLISH.
THE ENGLISH LANGUAGE.
By R. G. LATHAM, A.M.,
Fellow of King's College, Cambridge,
Professor of the English Language and Literature,
University College, London. 8vo. 12s.

The ETYMOLOGY and SYNTAX of the ENGLISH LANGUAGE EXPLAINED. By ALEXANDER CROMBIE, L.L.D. 4th edition, 8vo. 7s. 6d. boards.

GERMAN.
A GERMAN GRAMMAR.
By WILLIAM WITTICH,
Teacher of German in University College, London.
12mo. 6s. 6d.

GERMAN for BEGINNERS; or, Progressive Exercises in the German Language. By W. WITTICH, Teacher of German in University College, London. 12mo. 2nd edition, much enlarged, 5s. cloth.

KEY to GERMAN for BEGINNERS. 12mo. 7s.
STORIES from GERMAN WRITERS, in German and English, Interlinear, on Locke's plan. 12mo. 2s. 6d.

ITALIAN.
EXTRACTS from ITALIAN PROSE WRITERS.
By Dr. PANIZZLI. 12mo. 10s. 6d.

ELEMENTARY ITALIAN GRAMMAR. By Dr. PANIZZLI. 12mo. 3s.

STORIES from ITALIAN WRITERS, in Italian and English, Interlinear, on Locke's plan. 12mo. 2s. 6d.

NATURAL PHILOSOPHY and MATHEMATICS.
NATURAL PHILOSOPHY for BEGINNERS, being FAMILIAR ILLUSTRATIONS of the LAWS of MOTION and MECHANICS. Intended as a Text Book for Schools and Self-Instruction, as a Companion for the Lecture Room, or for Model Schools. Fcap. 8vo. with 143 Engravings on Wood. 3s. 6d.

LOGARITHMS (Tables of), COMMON and TRIGONOMETRICAL, to Five Places. Under the Superintendence of the Society for the Diffusion of Useful Knowledge. Fcap. 8vo. sewed, 3s.

LOGARITHMS (Four Figures) and ANTI-LOGARITHMS, on a Card. Price 1s.

BARLOW (P.)—TABLES of the SQUARES, CUBES, SQUARE ROOTS, CUBE ROOTS, and RECIPROALS of all NUMBERS, from 1 to 10,000. Re-examined. Royal 12mo. sewed, 3s.

DE MORGAN (Professor)—ELEMENTS of ARITHMETIC. 4th edition, royal 12mo. cloth, 4s.

ELEMENTS of ALGEBRA. 2nd edition, royal 12mo. cloth, 9s.

ELEMENTS of TRIGONOMETRY. Royal 12mo. cloth, 9s.

FIRST NOTIONS of LOGIC. Royal 12mo. sewed, 1s. 6d.

RITCHIE (Rev. Dr.)—PRINCIPLES of GEOMETRY, familiarly illustrated, and applied to a variety of useful purposes. 2nd edit. revised and enlarged, 12mo. with 150 Woodcuts, cloth, 3s. 6d.

REINER (CHAS.)—LESSONS of FORM; or, an Introduction to Geometry. 12mo. with 260 Woodcuts, cloth, 6s.

LESSONS on NUMBER. In Two Parts:—
Part 1. THE MASTER'S MANUAL. 12mo. cloth, 4s. 6d.
2. THE SCHOLAR'S PRAXIS. 12mo. cloth, 2s.

LARDNER (Dr.)—ELEMENTS of EUCLID, with a Commentary, and Geometrical Exercises. 6th edit. 8vo. 7s.

*** A CATALOGUE of SCHOOL BOOKS, including a LIST of EDUCATIONAL MODELS, may be had GRATIS on application to the Publishers.

Published this day, 12mo. 2s. 6d. cloth.
THE ELEMENTS of LINEAR PERSPECTIVE and the PROJECTION of SHADOWS; adapted to the Use of Mathematical and Drawing Classes and Private Students. With Sixty-one Diagrams on Wood. By W. BARNES, of St. John's College, Cambridge.
London: Longman, Brown & Co.; and Hamilton & Co.

ALLEN and CORNWELL'S ENGLISH GRAMMAR, with COPIOUS EXERCISES, and a complete System of the DERIVATION of WORDS, comprising Anglo-Saxon, Latin and Greek Lists, which explain the ETYMOLOGY of above 70,000 English Words. By ALEXANDER ALLEN, Ph. D., and JAMES CORNWELL, Tutor of the Normal School of the British and Foreign School Society. Fourth Edition. Price 1s. 9d. cloth; 2s. bound.
*** A school-book which we can conscientiously recommend. *Tait's Magazine*.—'A very valuable addition to the scientific apparatus of the day.'—*Encyclopedist Magazine*.
Simpkin & Marshall.

MR. MURRAY'S SERIES of ELEMENTARY WORKS FOR YOUNG PERSONS.

I. **MRS. MARKHAM'S HISTORY of ENGLAND.** Ninth Edition. 2 vols. 12mo. 12s.

II. **MRS. MARKHAM'S HISTORY of FRANCE.** Fifth Edition. 2 vols. 12mo. 12s.

III. **PHILOSOPHY in SPORT made SCIENCE in EARNEST;** or, Natural Philosophy illustrated by the Toys and Sports of Youth. Fifth Edition, with Woodcuts, fcap. 8vo. 8s.

IV. **CONVERSATIONS on NATURE and ART.** By a LADY. 2 vols. 12mo. 13s. half-bound.

V. **LETTERS from ITALY to a YOUNGER SISTER.** With SKETCHES of HISTORY, LITERATURE, and ART. By CATHERINE TAYLOR. Second Edition. 2 vols. 12mo. 12s.

VI. **LITTLE ARTHUR'S HISTORY of ENGLAND.** By LADY CALLCOTT. Fifth Edition. 18mo. 3s. half-bound.

VII. **STORIES from the HISTORY of ENGLAND, for CHILDREN.** Thirteenth Edition. 18mo. 3s. half-bound.

VIII. **PROGRESSIVE GEOGRAPHY for CHILDREN.** Third Edition. 12mo. 2s. half-bound.

IX. **GOSPEL STORIES for CHILDREN.** Second Edition. 18mo. 3s. 6d. half-bound.

X. **THE YEAR-BOOK of NATURAL HISTORY for YOUNG PERSONS.** By Mrs. LOUDON. 16mo. 4s.

XI. **SENTENCES from the PROVERBS.** In ENGLISH, FRENCH, GERMAN, and ITALIAN. 16mo. 3s. 6d. half-bound.
John Murray, Albemarle-street.

CLASSICAL WORKS FOR STUDENTS AT COLLEGE AND SCHOOL.

I. **MATTHIÆ'S GREEK GRAMMAR.** Fifth Edition. 2 vols. 8vo. 20s.

II. **INDEX of QUOTATIONS to MATTHIÆ'S GREEK GRAMMAR.** Second Edition, 8vo. 7s. 6d.

III. **MATTHIÆ'S SHORTER GREEK GRAMMAR.** For the Use of Schools. Seventh Edition, 12mo. 3s. bound.

IV. **GREECE GRAMMATICÆ RUDDIMENTA in USUM SCHOLARUM.** Fourth Edition, 12mo. 3s. 6d. bound.

V. **GREECE GRAMMATICÆ RUDDIMENTA MINORA.** 12mo. 1s. 6d. bound.
The latter work is intended for beginners, and consists of those parts of the former, which are printed in larger type.

VI. **LATINE GRAMMATICÆ RUDDIMENTA,** or Latin Grammar for Use of Schools.
*** This Grammar being based on that ennobled by the Royal Founder of so many Grammar Schools in England, and by many of his Successors, is called KING EDWARD VIth's Latin Grammar.

VII. **BUTTMAN'S LEXICOLOGUS.** Second Edition, 8vo. 14s.

VIII. **BUTTMAN'S IRREGULAR GREEK VERBS.** 8vo. 7s. 6d.

IX. **PEILE'S CHOEOPHORE of ÆSCHYLUS.** With English Notes. 8vo. 12s.

X. **PEILE'S AGAMEMNON of ÆSCHYLUS.** With English Notes. 8vo. 12s.

XI. **MÜLLER'S DORIANES.** Translated by TUFNEL and LEWIS. Second Edition. 2 vols. 8vo. 26s.

XII. **MITCHELL'S PLAYS of ARISTOPHANES.** With English Notes, 1. ACHARNESSES—2. WASPS—3. KNIGHTS—4. CLOUDS, 10s. each—5. FROGS, 15s.

XIII. **HASE'S POPULAR GRECIAN ANTIQUITIES.** Fcap. 8vo. 3s. 6d.

XIV. **COLERIDGE'S GREEK CLASSIC POETS.** Second Edition, fcap. 8vo. 7s. 6d.

XV. **GREEK VERBS;** their Formations, Defects, and Irregularities. By A. N. CARMICHAEL, Classical Master in the Edinburgh Academy. Post 8vo. 6s. bound.

XVI. **HOMERUS.** By the Rev. JOHN WILLIAMS, Rector of the Edinburgh Academy. 8vo. 10s. 6d.
John Murray, Albemarle-street.

In 2 vols. 12mo. 1000 pages, price 17. 1s. bound,

BATTLES OF THE BRITISH NAVY,

FROM A.D. 1000 TO 1840.

By JOSEPH ALLEN, Esq., Greenwich Hospital,
Author of 'England's Wooden Walls.'

With 24 Portraits of distinguished Admirals, chiefly taken from the celebrated full-length portraits in Greenwich Hospital. Those of Sir Robert Stopford, Sir George Cockburn, and Sir Nesbit Willoughby, engraved from the original pictures, and are acknowledged to be faithful likenesses, to which are added numerous Diagrams of distinguished actions. "The best and most complete repository of the triumphs of the British navy, which has yet issued from the press."—*United Service Gazette*. "As books of reference these volumes are invaluable: they contain the very pith and marrow of our best naval histories and chronicles."—*Sun*, July 14.

MAXWELL'S

LIFE OF THE DUKE OF WELLINGTON.

3 vols. 8vo. bds. with 52 steel Plates, and other Embellishments, price 3l. 7s., or royal 8vo. proof Plates, 5l.
Also, Part VI., price 2s. 6d. of the re-issue in Monthly Parts.

"Mr. Maxwell's 'Life of the Duke of Wellington' has no rival among similar publications of the day. The type and mechanical execution are admirable, the plans of battles and sieges numerous, ample, and useful. The portraits of the Duke and his warrior contemporaries, many and faithful; the battle pictures animated and brilliant; and the vignettes of costumes and manners worthy of the military genius of Horace Vernet himself."—*Times*, July 11.

London: A. H. BAILY & Co. 83, Cornhill.

UNDER THE ESPECIAL PATRONAGE OF HER MAJESTY, HER MAJESTY THE QUEEN DOWAGER,
and H.R.H. PRINCE ALBERT.

PORTRAITS OF THE ROYAL FAMILY,

AND MOST DISTINGUISHED

NOBLES AND COMMONERS OF GREAT BRITAIN.

By S. DIEZ.

MR. DIEZ is Portrait Painter in Ordinary to His SERENE HIGHNESS THE DUKE OF SAXE MEININGEN, under whose immediate Patronage he has visited this country, and whose letters have procured him the most flattering notice and great personal encouragement, as well of HER MAJESTY THE QUEEN, and her ILLUSTRIOUS CONSORT, as of HER MAJESTY THE QUEEN DOWAGER. Not only have their Majesties and His Royal Highness Prince Albert honoured Mr. Diez with sittings for their own Portraits, but they have personally interested themselves to procure him the notice and co-operation of those to whom he could not, otherwise, have hoped to obtain such favourable access. Every one of the Portraits in the Collection, therefore, has been taken with a direct view to this PUBLICATION, and under circumstances the most favourable for securing the authenticity of the likeness, and otherwise aiding the talent of the distinguished Artist.

It is intended that the Work shall appear in MONTHLY NUMBERS, each Number containing Two PORTRAITS; and the Plan of the Proprietors, which admits, nevertheless, of such extension as may be desired,—is, at present, limited to THIRTY PORTRAITS, in Fifteen Numbers; wherein the Royal House of England, and the several bodies of her Statesmen, Churchmen, Soldiers, and Lawyers, will each be represented by some of their heads.

The following PORTRAITS are now ready, Proofs, 10s. 6d.; Prints, 7s. 6d.

HER MAJESTY THE QUEEN.
H.R.H. PRINCE ALBERT.
H.R.H. THE DUCHESS OF CAMBRIDGE.
H.R.H. THE DUKE OF SSESSEX.
HIS GRACE THE DUKE OF WELLINGTON, K.G.
THE RIGHT HON. LORD LYNCHURST.

THE RIGHT HON. LORD HILL.
NEARLY READY.
HER MAJESTY THE QUEEN DOWAGER.
H.R.H. THE DUCHESS OF KENT.
LORD JOHN RUSSELL.

London: A. H. BAILY & Co. 83, Cornhill.

PART SINGING.—The Six Numbers of this Work, edited by the Author of 'THE SINGING MASTER,' may now be had complete, in cloth. It contains FIFTY-two of the most admired Madrigals, Glee, and Choruses, by Weble, Colcott, Ford, Storace, Spofforth, Danby, Handel, Weber, Glick, and other eminent Composers. Score (with Vocal Bass), 4s. 6d.; Soprano, 4s.; Alto, 3s.; Tenor, 3s. Price of the Work in Numbers; Score (with Bass), 1s.; Alto, 6d.; Tenor, 6d.; Soprano, 3d. Taylor & Walton, 28, Upper Gower-street; J. A. Novello, Dean-street; Simpkin & Co.

WORKS ON RAILWAY TRAVELLING AND STEAM NAVIGATION.
By E. Mogg, 14, Great Russell-street, Covent-garden.
MOGG'S Large TRAVELLING MAP of ENGLAND, peculiarly adapted to the purpose of the pleasure tourist; and Mogg's Map of the Country 45 miles round London, showing all the Railways; Mogg's Hand-Book for Railway Travellers, descriptive of the different Lines, the Towns, and Country in their vicinity, with Maps; separate Railway Guides for the principal Lines, with Maps; and Mogg's Map of Steam Navigation; together with the best Works on Road, Railway, and Continental Travelling.

8, New Burlington-street, July 23, 1847.
MR. BENTLEY HAS JUST PUBLISHED THE FOLLOWING NEW WORKS:
1. **STONEHENGE; or, the ROMANS in BRITAIN;** a Romance of the Days of Nero. 3 vols.
2. **ROMANTIC BIOGRAPHY of the AGE of ELIZABETH;** or, Sketches of Life from the Bye-ways of History. By the BENEDICTINE BRETHREN of GLENDAULOUH. Edited by W. C. TAYLOR, LL.D., of Trinity College, Dublin. 2 vols. 8vo. with Portraits.
3. **PEREGRINE BUNCE;** or, Settled at Last. By THEODORE HOOK, Esq., Author of 'Sayings and Doings,' 'Jack Brag,' &c. 3 vols.

4. **NARRATIVE of the SECOND CAMPAIGN in CHINA.** By KEITH STEWART MACKENZIE, Esq., late Military Secretary to the Commander-in-Chief. 1 vol. post 8vo.

5. **THE AMBASSADOR'S WIFE:** a Novel. By Mrs. GORE, Author of 'The Dowager,' &c. 3 vols.

6. **THE WARD OF THORPE COMBE;** a Novel. By Mrs. TROLLOPE, Author of 'The Widow Barnaby,' &c. 3 vols.

7. **NARRATIVE of VARIOUS JOURNEYS in BALUCHISTAN, AFGHANISTAN, and the PANJAB;** including a Residence in those Countries from 1826 to 1828. By CHARLES MASSON, Esq. 3 vols. 8vo. with numerous Plates, &c.

Richard Bentley, New Burlington-street,
(Publisher in Ordinary to Her Majesty.)

WAVERLEY NOVELS.

I. ABBOTSFORD EDITION, every Fortnight.

Six Parts are published, 2s. 6d. each.

II. PEOPLE'S EDITION, a Number every Saturday, 2d. A Part every Month, 9d. Twenty-eight Numbers, and Seven Parts, are published.

III. FOUR SHILLING EDITION, a Novel complete every Month, 4s. Sixteen Volumes are published.

Robert Cadell, Edinburgh; Houston & Stoueman, London.

* * Part VII. of Abbotsford Edition on 23rd July.

NEW SERMON BY THE REV. DR. HOOK.
In 8vo. price 1s. 6d.
PERIL OF IDOLATRY: a Sermon. By WALTER FARQUHAR HOOK, D.D., Vicar of Leeds, Prebendary of Lincoln, Chaplain in Ordinary to Her Majesty.

London: Rivingtons, St. Paul's Churchyard, and Waterloo-place. Leeds: Cross, Harrison & Green.

Just published, in fcap. 8vo. price 2s. boards,
A SCAMPER THROUGH ITALY AND THE TYROL: showing the minimum of Expense and of Time necessary for a Visit to the principal Italian Cities.

London: William Smith, 113, Fleet-street.

Preparing for publication,
ILLUSTRATIONS of FROISSART. Being a Series of Coloured Fac-similes from the Drawings contained in the illuminated Copies in the British Museum and elsewhere.

To be published in Monthly Parts, super-royal 8vo. size, to correspond with the recent edition of Froissart in two volumes. London: William Smith, 113, Fleet-street.

FROISSART'S CHRONICLES in SHILLING NUMBERS.
On the 1st of July was commenced a New Edition of **THE CHRONICLES of SIR JOHN FROISSART**, to be completed in Thirty-two Numbers, price One Shilling each, embellished with One Hundred and Sixteen Wood Engravings. In the First Number will be given a coloured fac-simile of one of the Drawings in the illuminated copy of Froissart at the British Museum, from which most of the Engravings are copied.

"Did you ever read Froissart?"—"No," was Morton's answer. "I have half a mind," said Claverhouse, "to contrive you should have six months' imprisonment in order to procure you that pleasure." His chapters inspire me with more enthusiasm than even poetry itself."—*Old Mortality*.

London: published by William Smith, 113, Fleet-street; and sold by all Booksellers.

THE FOURTH VOLUME OF MADAME D'ARBLAY'S DIARY AND LETTERS.

Will be ready on Monday at all the Booksellers.

Also, now ready,
A STEAM VOYAGE to CONSTANTINOPLE: by the RHINE DANUBE in 1840-41. By C. W. VANE, MARQUESS of LONDONDERRY, G.C.B. &c. In 2 vols. 8vo. with Illustrations, 28s. bound.

On Wednesday next, July 27,
MASSANIELLO: an Historical Romance. Edited by HORACE SMITH, Esq., Author of 'Brambletye House,' &c. 3 vols.

Henry Colburn, Publisher, 13, Great Marlborough-street.

THE RECREATIONS OF CHRISTOPHER NORTH.

CONTENTS:
1. The Moors.—Prologue.—Flight First; Glen Elva.—Flight Second; The Coves of Crauchan.—Flight Third; Sullistyle.—Flight Fourth; Down River and up Loch.—II. Highland Snow Storm.—III. The Holy Child.—IV. Our Parish.—V. May-Day.—VI. Sacred Poetry.
William Blackwood & Sons, 45, George-street, Edinburgh, and 22, Pall Mall, London.

ŒUVRES GASTRONOMIQUES de feu d'ANTONIN CAREME, de Paris, ancien chef des cuisines de George IV., du Prince de Talleyrand, de l'Empereur Alexandre, &c.

1. Le Cuisinier Parisien, nouvelle édition de 1842, 1 vol. in-8, orné de 25 planches, 9s.
2. Le Maître-d'Hôtel Français, nouvelle édition de 1842, 3 vol. in-8, ornés de 10 planches, 16s.
3. L'Art de la Cuisine Française au XIX. Siècle. 1 partie, 2 vol. in-8, ornés de 12 planches, 16s. 2 partie, 1 vol. in-8 orné de 12 planches, 10s. 6d.
4. Le Pâtissier Royal Parisien, nouvelle édition de 1841, 2 vol. in-8, ornés de 40 planches, 16s.
5. Le Pâtissier Pittoresque, 1 vol. gr. in-8, orné de 136 planches, nouvelle édition de 1842, 10s. 6d.
A Londres, à la Librairie Étrangère, W. Jeffs, 15, Burlington-arcade.

WINDLE'S PENS.

There are thirty varieties of Windle's Patent and other Pens. THE ROYAL PEN (by letters patent), their last invention, is now ready, and may be had of all respectable Stationers, Cutlers, &c.—Wholesale Warehouse, 46, King William-street, London Bridge.

MOSLEY'S METALLIC PENS.

The extraordinary patronage which these celebrated Pens have met with since their first introduction to the public, is a convincing proof of their decided superiority; for ease and smoothness in writing they are equal in every respect to the quill, while their great durability, combined with their cheapness, cannot fail to recommend them to the notice of merchants, bankers, and others, where time and legible writing are appreciated; another proof of their sterling qualities is the circumstance of their being used in many of the Government establishments, where only articles of a superior description are admitted. To guard against the many spurious imitations that are palmed upon the public, every genuine pen is stamped Richard Mosley and Co. London. These pens are sold by all Stationers and other respectable pen-dealers throughout the kingdom, and wholesale at 8, Hatton-garden.

METCALFE'S NEW AND ORIGINAL PATTERN of TOOTHBRUSH.

Made on the most scientific principle, and patronized by the most eminent of the faculty. This celebrated Brush will search thoroughly into the divisions of the teeth and will clean in the most effectual and extraordinary manner. Metcalfe's Tooth-Brushes are famous for being made on a plan that the hairs never come loose in the mouth, price 1s. An improved Cloth-brush, that cleans in a third part of the usual time, and incapable of injuring the first nap. A newly-invented Brush for cleaning velvet with quick and satisfactory effect. The much-approv'd Flesh-Brushes, as recommended by the Faculty, and Horse-hair Gloves and Belts, Penetrating Hair-Brushes, with the durable unbleached Russian bristles, that do not soften in washing or use like common hair. A new and large importation of fine Turkey Sponges, and Combs. To be had only at Metcalfe's SOLE Establishment, No. 130 B, Oxford-street, nearly opposite Hanover-square.

SPONGE.—METCALFE'S SMYRNA

SPONGE, guaranteed to the public in its pure and natural state, whereby its valuable properties of absorption, vitality, and durability are preserved. Arrangements have been made, in conjunction with several merchants, to insure the direct delivery of the importations into our hands; by this means securing it from any destructive process and deception that may be used by the many intermediate hands it now has to pass through before reaching the consumer, and consequently effecting a great saving in the price. The luxury of a genuine Smyrna sponge can now be obtained. Caution in the address:—To be had only at Metcalfe's sole Establishment, 130 B, Oxford-street, opposite Hanover-square.

OAK CARVINGS for CHURCH DECORATIONS, &c.—Messrs. BRAITHWAITE & CO., Proprietors of the Patent Method of Carving in Solid Wood, beg leave to invite the Nobility, Clergy, Architects, and Builders, to examine their OAK CARVINGS, suitable to the Gothic Embellishment of Cathedrals and Churches, such as Stalls, Panelling, Enriched Tracery, Chairs, Communion Kitchens, &c. Screens, Pulpits, Reading Desks, Lecterns, Stalls, heads, Finials, Organ Screens, Gallery Fronts, &c. &c. at one-half the price usually charged.—Estimates given, and Contracts entered into for the entire Fitting-up, Restoration, or Repairs, of any Cathedral, Church, or Mansion.

No. 5, Henrietta-street, Covent-garden, Feb. 9, 1847.

PATENT SPINE CORRECTORS.—SHELDRAKE, BIGG & Co. having been appointed sole Agents for the Manufacture of DR. KINGDON'S PATENT SPINE CORRECTORS, (Dr. Kingdon, of Westbrooke-house, Hyde, Isle of Wight, patient,) beg to call the attention of the public to this invaluable invention. The Patent Spine Correctors produce no uneasiness to the wearer; they are most efficacious in affording the best support to the debilitated pillar; they admit of exercise being freely taken, and allow of perfect expansion of the chest.—Sheldrake, Bigg & Co., Anatomical Mechanists, 29, Leicester-square, London.

THE AFFLICTED with ERUPTIONS on the SKIN.

Whether arising from scurvy, surfeit, or otherwise, may confidently obtain relief by making application of DOUGLAS'S OINTMENT. Many thousands have been perfectly cured, and certificates may be inspected and ointment obtained, at 11, Little Wellbeck-street, Cavendish-square, and of his numerous agents in town and country. Applications by post promptly attended to.

WHITTAKER & CO., AVE MARIA LANE, LONDON.

CLASSICAL BOOKS.

ÆSCHYLI PROMETHEUS VINCTUS. With English Notes. By JOHN GRIFFITHS, M.A., Fellow and Tutor of Wadham College, Oxford. In 1 vol. 8vo. price 3s.

Also, by the same Editor,
ÆSCHYLI SEPTEM CONTRA THEBAS. The Text of DINDORF. With English Notes. 1 vol. 8vo. 3s.

ARISTOPHANIS COMÆDIÆ. with a new Text and Scholia, revised by Professor BEKKER, of Berlin. The Fragments, Indices, Latin Version, and the Annotations of Bekk, Bentley, Bergler, Brunck, Burney, Cour, Dobree, Elmsley, Kuster, Porson, Reising, Schütz, and others, are added. 5 vols. 8vo. 3l. 12s.

The following Plays are sold separately: **AVES**, 9s.; **NUBES**, 12s.; **PLUTUS**, 15s.; **RANÆ**, 9s.

ARNOLD'S THUCYDIDES. Illustrated by Maps, Notes, &c. 8vo. Vol. I. 12s. Vol. II. 8s. Vol. III. in the press.

BEKKER'S THUCYDIDES. 8vo. price 14s. boards.

BROTIER'S TACITUS. 4 vols. 8vo. price 2l. 16s. boards.

BURTON'S GREEK TESTAMENT, with English Notes. 2 vols. 8vo. price 2l. 12s. boards.

BUTTMAN'S INTERMEDIATE and LARGER GREEK GRAMMAR, translated from the German; with a Biographical Notice of the Author. Edited by Dr. CHAN. SUFF. New edition, with the Syntactical Part enlarged, 8vo. price 13s. 6d. boards.

BUXTORF'S HEBREW LEXICON. 8vo. price 16s.

BYTHNER'S LYRE of DAVID, Critical and Practical, with a HEBREW and CHALDEE GRAMMAR. Translated by the Rev. THOMAS DELL, A.B. &c., who has added TABLES of the IMPERFECT VERBS and a PRAXIS of the first Eight Psalms. 8vo. price 24s. cloth lettered.

GAISFORD'S HERODOTUS. 3rd edition, 2 vols. 8vo. price 1l. 12s. bound.

GOTTTLING'S ELEMENTS of GREEK ACCENTUATION. Translated. 8vo. price 5s. sewed.

GRETTON'S INTRODUCTION to the TRANSLATION of ENGLISH POETRY into LATIN ELEGIACS and HEXAMETERS. 12mo. Fasc. I. English Version, 3s. cloth; Fasc. II. Latin Version, 3s.; bound together, 6s. cl.

OPPENHEIM'S HEBREW GRAMMAR, with an Appendix on the Analogies of Verbs. 8vo. price 9s.

ROST'S GREEK GRAMMAR. Translated from the German. To which is added an Appendix on Greek Versification. 8vo. price 12s. boards.

SCHWEIGHÆUSER'S LEXICON to HERODOTUS. New edition, 8vo. 11s. boards.

SPITZNER'S ELEMENTS of GREEK PROSODY. Translated. 8vo. price 6s. sewed.

SQUIRE'S EXERCISES for GREEK VERSE. 2nd edition, 12mo. price 3s. 6d.

KEY to ditto. 12mo. price 3s. 6d.

VALPY'S GROTIVS; with English Notes. 12mo. price 6s. bound.

VALPY'S GRADUS, LATIN and ENGLISH, 5th edition, royal 12mo. price 7s. 6d. bound.

VALPY'S GREEK TESTAMENT, with English Notes. 4th edition, with parallel references, and other improvements. 3 vols. 8vo. price 2l. bound in cloth.

WALKER'S CLAVIS HOMERICA; or, Lexicon of all the Words which occur in the Iliad. 5th edition, 12mo. price 9s. bound.

XENOPHON. ANABASIS, Ex Recensione, et cum Notis THOMÆ HUTCHINSON, A.M. Nova editio, 8s. With Latin Translation, 9s. boards.

LATIN AND GREEK INTRODUCTORY BOOKS.

NIBLOCK'S NEW and IMPROVED LATIN and ENGLISH, and ENGLISH and LATIN DICTIONARY. In Two Parts. For the Use of Schools, Colleges, and Private Tuition. 2nd edition, considerably improved, sq. 12mo. price 9s. bound—Part I., containing the Latin and English Dictionary, sold separately, price 3s. 6d. bound.

STEPS to SENSE VERSES; or, a Set of Exercises, to be rendered into Latin Hexameters and Pentameters. For the Use of Schools. Price 1s. 6d. bound.

A COMPLETE KEY to the Same. Price 1s. 6d.

WHITTAKER'S FLORILEGIUM POETICUM; a Selection of Elegiac Extracts from the Works of Ovid, Tibullus, Propertius, Martial, and Anonius. New edition, with English Biographical Notes. 18mo. 3s. bound.

WHITTAKER'S LATIN EXERCISES; or, EXEMPLA PROPRIA; being English Sentences translated from the best Roman Writers, and adapted to the Rules in Syntax; to be again translated into the Latin Language. 5th edition, 12mo. price 3s. bound.

A KEY to the Same. Price 2s.

WHITTAKER'S PRÆTORII et ÆSOPI FABULÆ. 12mo. price 2s. bound.

VALPY'S CORNELII NEPOTIS EXCELENTIUM IMPERATORUM VITÆ. Ad fidem optimorum exemplorum denuo castigata. Price 2s. 6d. bound.

VALPY'S PUBLII TERENTII AFRI COMÆDIÆ SEX. Ad fidem Editionis Westerhoviannæ Concinnata. Nova editio, price 3s. 6d.

A GREEK TESTAMENT; from the Text of GRIESBACH and VALPY. 12mo. price 5s. bound.

PICQUOT'S SHORT GREEK EXERCISES, on an improved plan, containing the most useful Rules in Syntax, being a concise introduction to the writing of Greek. 3s.

A KEY to the EXERCISES. Price 1s. 6d.

GRÆCÆ SENTENTIÆ: a Delectus of Maxima, Sententiae, and Precepts; selected from the Greek Writers, and arranged in the form of a Testament. To which are added, The Golden Verses of Pythagoras, and Bion's Epitaph on Adonia. With short Notes, a Vocabulary, and other Notes. New edition, improved, 12mo. price 3s. 6d. bound.

HINCKS' GREEK and ENGLISH SCHOOL LEXICON; containing all the Words that occur in the Books at School, and in the Undergraduate Course of a Collegiate Education. Square 12mo. price 12s. 6d.

An ENGLISH and GREEK VOCABULARY. Price 2s. 6d.

VALPY'S CAII SALLUSTII CRISPI QUÆ EXTANT. Nova editio, price 2s. 6d. bound; or with English Notes, by Dr. HICKIE. Price 4s. 6d.

PINNOK'S CATECHISMS of the GREEK GRAMMAR—THE HEBREW GRAMMAR—LATIN GRAMMAR; being concise and plain expositions of the elements of each language. 18mo. price 9d. each sewed.

FRENCH and ITALIAN SCHOOL BOOKS.

CONVERSATIONS of a MOTHER with her DAUGHTER, and some other Persons; or, Dialogues composed for Madame Campan's Establishment near Paris. Arranged for the Use of English Young Ladies. French and English. 4th edition, with a Vocabulary, price 3s. 6d. bound.

THE SAME WORK, in ENGLISH and ITALIAN. Price 4s.

LITALIE; being an Abridgment, in French, of Madame de Staël's 'Corinne,' containing a Description of the Antiquities of Rome, an Account of Naples, Pompeii, Vesuvius, &c.; and a Description of the Manners, Customs, and Literature of the Italians. In 12mo. price 3s. 6d. cloth lettered.

ELISABETTA, ossia gli ESILIATI NELLA SIBERIA. Tradotta dal FRANCESE DI MADAMA COTTIN, de M. SANTAGNELLO. A new edition, in 18mo. price 4s.

NOVELLI MORALI DI FRANCESCO SOAVE. Nuova edizione, diligentemente corretta, in cui si sono accennate tutte le voci; e che contiene un Vocabolario aggiunto alla fine. In 12mo. price 4s.

GROS' THEORETICAL and PRACTICAL GRAMMAR of the FRENCH LANGUAGE. With numerous instructive Exercises, founded on twenty years' experience in teaching the French Language. In 12mo. price 5s.

A KEY to the EXERCISES. Price 3s. 6d.

BEAUMONT'S MAGAZIN DES ENFANS; ou, Dialogues entre une Sage Gouvernante et ses Elèves. Dans lesquels on donne un abrégé de l'Histoire Sacrée, de la Fable, de la Géographie, &c. A new edition, price 3s.

POPULAR CLASS BOOKS.

AN HISTORICAL EPITOME of the OLD and NEW TESTAMENTS and PART of the APOCRYPHA; in which the events are arranged according to Chronological Order. By a Member of the Church of England. 6th edition, with several Engravings and Maps. 12mo. price 6s. 6d.

PLATT'S LITERARY and SCIENTIFIC CLASS BOOK; containing popular descriptions of the most interesting and useful objects of Science, and forming three hundred and sixty-five reading lessons, for every day in the year. With 1,000 Questions for Examination. A new edition, much improved, with several Engravings. 12mo. price 3s. bound and lettered.

PINNOK'S JUVENILE READER; being a Sequel to the Mentor's Primer. Calculated for Children from four to seven years old. A new edition, with considerable improvements, and the addition of many original pieces. 12mo. price 1s. 6d. bound.

PINNOK'S UNIVERSAL EXPLANATORY ENGLISH READER, calculated to assist both Teacher and Pupil; consisting of Selections, in Prose and Verse, on interesting and improving subjects. 6th edition, 12mo. price 4s. 6d. bound.

THE MORAL POETICAL MISCELLANY; containing Choice Selections from our most approved Poets, arranged under distinct heads. 18mo. price 3s. bound.

CROLY'S BEAUTIES of the BRITISH POETS; with a few Introductory Observations. With several Engravings. 2nd edition, enlarged, 12mo. price 7s. bound.

WHITTAKER'S IMPROVED EDITIONS of PINNOK'S CATECHISMS of the ARTS, SCIENCES, and LITERATURE. FORMING A JUVENILE ENCYCLOPEDIA. Illustrated with Maps, Plates, and Woodcuts. 18mo. price 9d. each.

The extensive sale of these little works has proved their unrivalled utility as initiators to all branches of learning. Their style has rendered them available by the youngest scholar, while at the same time adults have derived equal advantage from them in commencing a course of any of the subjects treated of. Each catechism has been carefully re-edited, and were the names of the various editors to be given, they would be found to include those of men the most distinguished in their various professions and pursuits. Every edition is also carefully supervised so as to comprise the latest discoveries or improvements. It is not too much to say that these little works have greatly aided the intellectual advance of the age, by rendering clear to the dulled capacity the elements of all branches of knowledge.

HISTORY.	MATHEMATICS, &c.	NATURAL HISTORY.
Modern	Algebra (2 Parts)	Botany, (coloured,
Ancient	Arithmetic	zoology)
Universal	Geometry	Natural History
Bible and Gospel	Navigation	Conchology
Chronology	Land Surveying	Horticulture
England		Miscellaneous
Scotland		Mammalia
Ireland		Birds
France	RELIGION.	Fishes
America	Christian Religion	Reptiles
Rome	Evidences of Christi-	Insects
Greece	anity	Crustacea
Jews	Liturgies of the Church	Mollusca
	of England	
	Natural Theology	
	Religious Denomina-	
	tions	
	Scripture History.	
		LITERATURE.
		Poetry
		Mythology
		Rhetoric
		Logic
		British Biography
		Classical Biography
		MISCELLANEOUS.
		First Catechism
		General Knowledge
		Philosophical Philo-
		sophy
		Agriculture
		English Law
		Heraldry
		Medicine
		Moral and Social
		Duties
		Trade and Com-
		merce.

GRAMMAR.

English	Pneumatics	Electricity
French	Optics	
German	Acoustics	
Italian	Architecture	
Latin	Drawing	
Spanish	Painting in Oil	
Greek	Perspective	
Hebrew	Music	

YINE ARTS, &c.

The following may be had, with an explanatory Map to each, price 1s.: Modern Geography—Bible History—History of England.

For the use of young persons studying French, the Catechisms of History of England, Geography, and Bible History, are translated into that language, price 1s. each.

The above may also be had in twelve volumes, price 3l. 10s. in cloth, or 4l. 10s. half-bound morocco and lettered.

WHITTAKER'S POPULAR LIBRARY.

COPYRIGHT EDITIONS.

Printed on a very fine paper in an excellent clear type, large 8vo. uniform with Byron's Works, Campbell's Poets, &c. in neat wrappers.

	s. d.		s. d.		s. d.
RANKES HISTORY of the POPES of the Sixteenth and Seventeenth Centuries. Translated from the last edition of the German. By WALTER K. KELLY, Esq. B.A. Part I.	4 0	KOCH'S HISTORY of EUROPE	6 0	THE FAVOURITE of NATURE. A TALE. 4th edition	3 6
* * * Part 2 and 3, completing the work, will be speedily published.		BROWNINGS HISTORY of the HUGUENOTS	6 0	ENGLISH SWITZERLAND, SOUTH of FRANCE, &c.	3 0
DAUBIGNY'S HISTORY of the REFORMATION of the SIXTEENTH CENTURY. Parts I. II. and III. (corresponding with Vols. I. II. and III. of the original), each	3 6	CARRICK'S LIFE of WALLACE	3 0	ENGLISH TALES of ARDENNES. New edition ..	1 0
Translated from the last Paris edition, by WALTER K. KELLY, Esq. B.A., Trinity College, Dublin.		BELLS LIFE of MARY QUEEN of SCOTS	3 6	ARAGO'S POPULAR LECTURES on ASTRONOMY. Translated, with explanatory Notes, by WALTER K. KELLY, Esq. With numerous Illustrations	2 0
* * * Part 4 will be issued directly it is published in Paris.		THIERRY'S HISTORY of the CONQUEST of ENGLAND by the NORMANS. Translated from the last Paris edition, containing important additions, with a copious Index	7 0	* * * Elegantly bound in cloth and lettered, one Shilling extra each.	

London: JAMES HOLMES, 4, Took's Court, Chancery Lane. Published every Saturday, at the ATHENÆUM OFFICE, 14, Wellington-street North, Strand, by JOHN FRANCIS; and sold by all Booksellers and News-vendors.—Agents: for Scotland, Messrs. Bell & Bradburn, Edinburgh; for Ireland, J. Cumming, Dublin.